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Honors Thesis

EXAMINING MULTIMORBIDITIES USING ASSOCIATION RULE LEARNING

by
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Submitted to Brigham Young University in partial fulfillment
of graduation requirements for University Honors

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Brigham Young University
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ABSTRACT

EXAMINING MULTIMORBIDITIES USING ASSOCIATION RULE LEARNING

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Bachelor of Science

All insurance companies, regardless of the kind of insurance they offer, do their best to predict the future by comparing current to historical information. Any statistically significant correlation, regardless of expectations and hidden factors, can help to actuarially model future behavior.

Using deidentified data from over 6 million health insurance policies over one year, we looked for any significant groupings of medical issues. The medical issues are defined based on the commercial “Episode Treatment Groups” (ETGs) classification, and our claims contain 347 different ETGs.

We performed different kinds of analysis, including Bayesian posterior cluster analysis, k-means cluster analysis, and association rule learning. We compared our findings to medical expectations.

ACKNOWLEDGMENTS

Many thanks to Brian Hartman for his patience and guidance, and to Pete Dotson for his technical expertise. Thanks also to Lewis Dudley, MD, for his help in identifying and explaining medically unexpected associations.

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INTRODUCTION

Medically and colloquially, we tend to associate different diseases and disorders. We think of anxiety and depression together, and often associate obesity with a myriad of ailments: high blood pressure, high cholesterol, joint degeneration, and diabetes. Medically, too, doctors consider both co- and multimorbidity in diagnosing and treating their patients.

Given this background, what statistically significant co- and multimorbidity will the data indicate? This thesis is not intended to prove any medical association, for which I am wholly unqualified. This analysis is meant to find correlations, whether medically expected or not, and which may warrant further investigation for health insurance and healthcare providers. In order to find these correlations, we tried multiple methods but eventually found association rule learning to be the best methodology for our purposes.

The use of association rule learning for medical data is nothing new. Doddi et al. used association rule learning to indicate relationships between a patient's procedures and the reported diagnoses (2001). Viveros et al. used association rule learning to find patterns in doctors' orders of pathology services in order to group them by general nature and style (2013). Baesens and Broucke explain how association rules can identify patterns of fraud, including health insurance fraud (2016). Lau and Tripathi used Workers Compensation claims to identify potential areas of prevention in the workplace (2011). We will take a broader approach with our analysis, and will consider all of a major health insurance provider's claims over the course of one year to find general patterns of association. At this stage in the analysis, we will not consider the related claims costs.

DATA OVERVIEW

Our data come from a major health insurance provider and include all paid claims from 1 July 2012 to 30 June 2013. In that time, the company paid claims for 6,113,838 members. Each claim includes the person's age, gender, claim amount paid, kind of treatment, and episode start date. The first few rows, as an example of the data, are shown in Table 1.

So the data indicate that in the recorded year, person 1, a 41-year-old woman, had three paid health insurance claims, two of which began before the recording date. For the treatment behind each claim, the ETG column of Table 1 indicates the category of ailment as found in Table 8.

Table 1: Persons 1-3

ID	Age	Sex	ETG	Total Amount	Episode Start Date
1	41	F	1622	927.85	01JUL2012
1	41	F	4383	2145.76	21MAY2012
1	41	F	6351	7676.34	01JUL2012
2	31	M	4388	543.60	01JUL2012
2	31	M	7791	628.39	05JUN2013
2	31	M	7794	598.89	05JUN2013
3	40	M	3999	362.00	16APR2013

ETG, or "Episode Treatment Group", is based on a commercial classification of possible medical treatments. Technically there are six digits, not four, but we remove the last two (more specific) digits to protect patient privacy. For example, ETG 711901 (Major joint inflammation - foot & ankle) becomes, for us, a more general ETG 7119

(Major joint inflammation). Bottle and Aylin explained the ETG system as follows (2016).

An episode can belong to only one patient, but a patient can be in multiple episodes at the same time. Episodes are defined and grouped by proprietary software in the United States for purposes such as value-based purchasing initiatives to improve the quality of care while avoiding unnecessary costs. The market-leading method for grouping such episodes is the OptumTM Symmetry[®] Episode Treatment Group[®] (ETG) for medical and pharmacy claims data. It adjusts for disease severity and associated costs and has some similarities with diagnosis-related groups such as its ability to create resource-homogeneous groups. One key difference is that its ability to create resource-homogeneous groups. One key difference is that it cuts across healthcare sectors, so it covers inpatients, outpatients and ancillary services. An ETG captures medications, diagnostic information (comorbidities and complications) and procedures.

So, returning to person 1: her insurance paid \$927.45 toward her hyper-functioning thyroid gland treatment, \$2,145.76 toward her acute bronchitis treatment, and \$7,676.34 toward her treatment for conditions associated with infertility. We have similar data for 6,113,837 other people.

These ETGs are grouped into 22 MPCs, or Major Practice Categories, indexed in Table 7. Aggregate claim information, grouped by MPC, is shown in Table 2.

Table 2: Claim Aggregates by MPC

Major Practice Category	Claim Count	Average (\$)	Maximum (\$)
Cardiology	1,633,554	3,445.24	2,533,176.32
Chemical dependency	123,686	1,669.96	1,645,904.58
Dermatology	2,496,394	7,579.95	4,072,522.25
Endocrinology	2,026,801	1,697.56	766,141.35
Gastroenterology	1,219,131	3,328.24	491,260.35
Gynecology	834,650	5,437.56	2,375,594.92
Hematology	187,517	956.20	749,383.32
Hepatology	100,151	4,071.38	4,357,839.25
Infectious diseases	278,211	740.40	1,740,124.22
Isolated signs & symptoms	387,158	2,429.96	3,443,890.40
Late effects, environmental trauma & poisonings	93,615	4,460.83	2,846,706.29
Neonatology	53,307	12,455.76	2,014,169.82
Nephrology	73,389	34,142.21	3,244,267.32
Neurology	581,348	3,024.77	1,080,813.86
Obstetrics	100,783	14,624.49	2,878,626.48
Ophthalmology	1,155,398	4,385.07	1,494,069.63
Orthopedics & rheumatology	2,612,979	882.96	2,080,023.16
Otolaryngology	3,230,160	3,820.86	3,558,499.99
Preventive & administrative	3,908,909	11,320.53	2,968,575.27
Psychiatry	773,879	485.96	507,713.88
Pulmonology	1,072,092	3,378.84	4,774,041.97
Urology	751,337	493.49	287,014.67
All	23,694,449	2,329.65	4,774,041.97

METHODOLOGY (STATISTICS)

To find these correlations between treatments, we used Association Rules Learning, which is a machine learning method of comparing every possible combination of items against specified parameters. Specifically, we used the apriori algorithm as found in the arules package, which stores subproblem results to avoid recomputation.

One crucial element of association rule learning is user-defined criteria for acceptable association strength. We defined a minimum support and confidence for the algorithm, and evaluated the strength of the results by lift.

SUPPORT

Support is the frequency with which the itemset appears in the data. For such a large amount of data we set minimum support at one-millionth, so that at least six members in our dataset will need to have charges in order for the ETG to be included.

$$\text{supp}(X) = \frac{|\{t \in T, X \subseteq t\}|}{|T|}$$

CONFIDENCE

Confidence can be understood as the proportion of the time that the rule holds true. X does not always correlate with Y. We set our minimum confidence at 0.2.

$$\text{conf}(X \Rightarrow Y) = \frac{\text{supp}(X \cup Y)}{\text{supp}(X)}$$

LIFT

Lift is a useful metric for evaluating the merit of an individual association rule between items, once the association rules have already been calculated. It is the ratio of the observed support to the product of the expected supports if the individual items are independent. The higher the lift, the more the items are dependent on each other. A lift of 1 indicates complete independence, and a lift of less than 1 indicates that the presence of one item reduces the probability of the other item's appearance.

$$\text{lift}(X \Rightarrow Y) = \frac{\text{supp}(X \cup Y)}{\text{supp}(X) \times \text{supp}(Y)}$$

RESULTS

A BRIEF OVERVIEW

Some of the associations are medically unexpected. For example, Itemset 55 (expanded in Table 3, and which statistics can be found in row 55 of Table 9) links diabetes with pancreatic cancer. The pancreas is the organ that produces insulin, which regulates blood glucose. Those conditions have a clear connection, nominal though it may be. The itemset also includes agranulocytosis, which is an acute condition of a dangerously low white blood cell count. Seven people had this combination of conditions, which is interesting considering how rare agranulocytosis is. This combination of conditions is not likely to be incidental.

Table 3: Itemset 55

LHS		RHS
Diabetes, Agranulocytosis Hypertension, Chronic pancreatitis	⇒	Malignant neoplasm of pancreatic gland

In the same vein, the results may strengthen known medical connections and indicate a stronger correlation than previously supposed. For example, the 1500 strongest associations (sorted by lift) contain 220 itemsets associated with pancreatic cancer, or malignant neoplasm of the pancreatic gland. Interestingly, 170 of these associations include chronic pancreatitis. There are 171 itemsets including chronic pancreatitis in total, and the only exception, Itemset 568, is associated with a malignant neoplasm of the hepatobiliary system. Chronic pancreatitis is inflammation of the pancreas that increases cell turnover, and where more cells are multiplying, there are more cells to potentially become cancerous. If claimants afflicted by chronic pancreatitis all made related claims in the measured year, this may suggest a stronger association between

chronic pancreatitis and pancreatic cancer than reported by Yadav and Lowenfels (2013). The reverse often holds true, with 104 of 143 cases (from the top 1500) of pancreatic cancer associated with chronic pancreatitis.

Table 4: Itemset 36

LHS	RHS
Epilepsy, Congenital disorders of central nervous system Malignant neoplasm of breast	⇒ Malignant central nervous system metastases

Table 4 illustrates another medically unexpected itemset. Row 36 is the only case in the strongest 1500 associations in which congenital disorders of the central nervous system are associated with malignant central nervous system metastases. It's also the only combination of cancer with congenital disorders of central nervous system, so it may be that congenital abnormalities predispose to metastatic seeding, once the cancer is already present.

Some of the algorithm's proposed associations can be safely dismissed as statistical noise, largely due to the high prevalence of certain ETGs in the general population. Table 5 is a good example of this.

Table 5: Itemset 9

LHS	RHS
Other metabolic disorders, Malignant neoplasm of central nervous system Infection of lower genitourinary system not sexually transmitted, Malignant neoplasm of breast	⇒ Malignant central nervous system metastases

Medically, most of the proposed association in Table 5 makes sense, except for the urinary tract infection. The algorithm includes UTIs in the rule because seven people had the other ailments, as well as incidental UTIs. This is likely due to the

frequency with which women get urinary tract infections; the National Institute of Child Health and Human Development estimates a woman’s lifetime UTI risk to be at least 40%, and the risk of recurrent UTIs increases with each infection (2016).

Table 6: Itemset 7

LHS	RHS
Hypertension, Other inflammation of intestines & abdomen Chronic renal failure, Conditional exam	⇒ Liver transplant

A similar case to Table 5’s Itemset 9 occurs in Itemset 7, shown in Table 6. The CDC estimates that 29.1% of U.S. adults have high blood pressure, or hypertension, and so its inclusion in a set of items associated with a liver transplant is likely incidental, as reported by Nwankwo et al. (2013).

Figures 1 and 2 use both the itemsets and the rules’ strength as vertices. Figure 1 corresponds with the first 20 rows of Table 9, and the meaning of the ETGs displayed above can be found in Table 8. Note the support, which is rounded down to zero but relative differences are still noticeable in the size differences, and the shading differences indicating relative difference in lift. Compared to the rest of the data, however, the lift is extremely strong. Figure 2 is a graphical representation of the 100 rules with the largest support, which corresponds with frequency. Even the most frequent itemset only appeared in 5.5% of the claimants. As with Figure 1, lift strength is indicated by the shading. Such graphical representations are necessarily usually limited to just a small quantity, with the exception of Figure 2, which fits more rules because so many rules correspond with ETG 7794, Routine Exam.

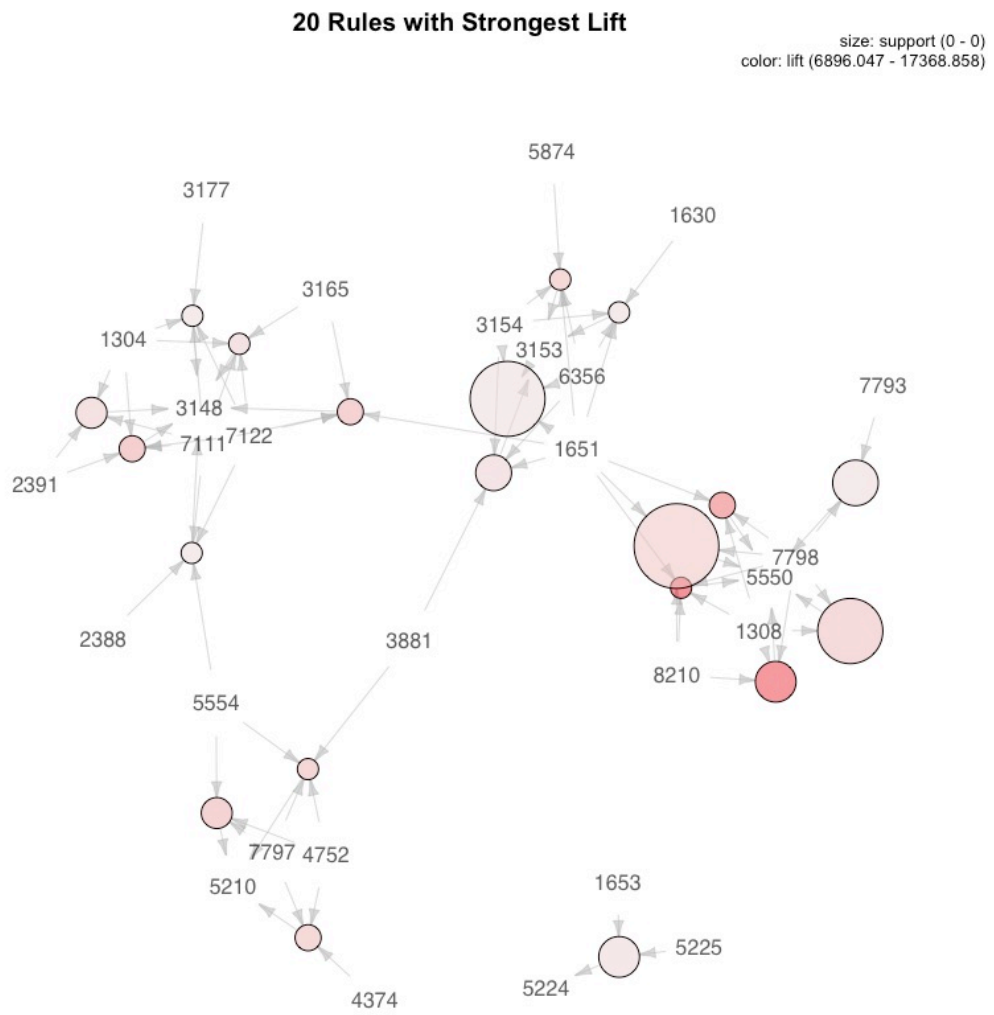


Figure 1: A graphical representation of the 20 rules with the strongest lift.

100 Rules with Strongest Support

size: support (0.008 - 0.055)
color: lift (0.549 - 4.926)

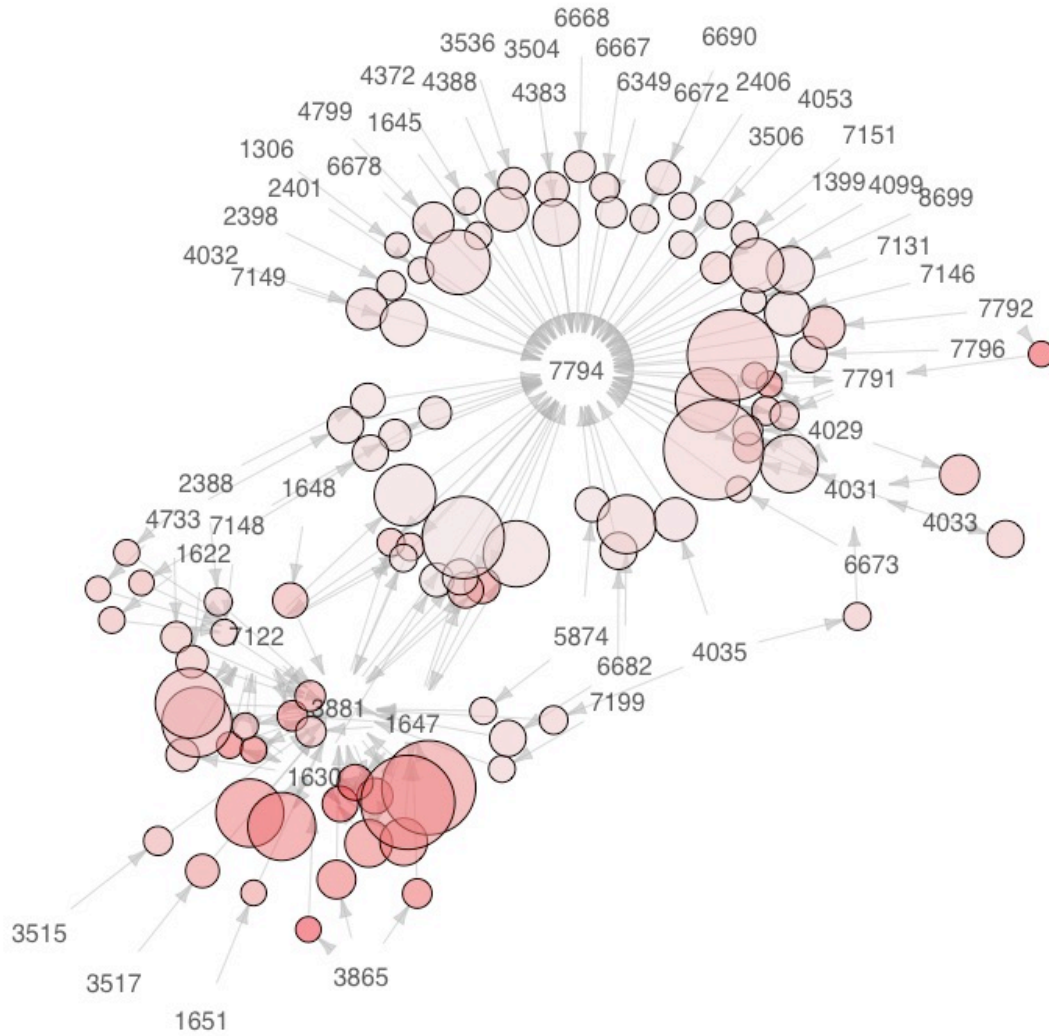


Figure 2: A graphical representation of the 100 rules with the largest support.

CONCLUSION

This analysis does have certain limitations. The data only contain claims that were paid in one year. Information from any unpaid claims will not be present in the data, as well as the long-term effects of any non-chronic ailments still present. Furthermore the information is limited to the insurance provider's plan members, in which there may be some selection bias.

As stated before, this information is not intended to be a proof of medical causes. It may provide insights into the de facto and incidental associations that commonly occur, which could be helpful for professionals in both the medical and the health insurance industries. With adequate data, it can strengthen known medical connections, indicate patterns of suspicious and potentially fraudulent claims, and contribute toward insurance providers' solvency by predicting possible future claims. This thesis only examined the strongest of the strong associations, while the apriori algorithm returned millions of proposed associations, most of which warrant further consideration.

Further steps for this information may include some analysis of claimants' ages with the statistical multimorbidities. Multimorbidity increases with age, according to Ording and Sørensen (2013). There may be other confounding variables such as gender or even the inclusion of a routine exam. Further analysis may find universal association rules, or may limit association rules to patients with certain prerequisites. Finally, there may be some value in analyzing the associations in conjunction with the claim costs for insight into the financial effects of the associations.

ALTERNATIVE METHODOLOGY

Association Rule Learning was not our initially planned methodology. In fact, my thesis proposal was focused on "an innovative application of existing Bayesian methods of

cluster analysis”. The following sections detail other methods we tried, but suffice it to say that these didn’t find any significant results.

BAYESIAN POSTERIOR CLUSTER ANALYSIS

We first sorted the data into a matrix with individual people on the rows, and ETGs as columns. Each person has a 1 in an ETG column where they received at least one claim payment, and a 0 in every other ETG column. Each individual represents a single Monte Carlo draw, with natural clusters where they filed claims. We then used several methods of finding the Bayesian posterior cluster models, i.e. identifying final clusters based on given information. These methodologies have been aggregated and explained by Fritsch and Ickstadt, and implemented in the R packages `mclust` and `mclust`. The following subsections describe these methodologies, labeled by the package function names (2009).

i. MCLUST CRITERIA

The MCLUST criterion is a benchmark criterion that focuses on finding each individual cluster probability π_{ij} , given in the following equation.

$$\pi_{ij} = P(c_i = c_j | y) \approx \frac{1}{M} \sum_{m=1}^M I_{c_i^{(m)} = c_j^{(m)}}$$

This particular method is so computationally intensive that it overloaded the BYU Statistics Department servers at a subset of 100,000 of the 6,113,838 people. We were unable to draw any meaningful conclusions using the MCLUST criteria, given that we couldn’t perform a complete analysis.

ii. MAP CRITERIA

MAP clustering, or Maximum a posteriori, finds cluster estimate \hat{c} by maximizing the posterior density. This kind of cluster analysis did not yield any distinctive results, and mostly grouped all the ETGs into one large cluster.

iii. MEDVCOMP CRITERIA

Developed by Medvedovic et al., this is a method to obtain \hat{c} by finding $1 - \pi_{ij}$, i.e. the probability that observations i and j are not clustered together (Medvedovic, Yeung and Bumgarner). This kind of cluster analysis did not yield any distinctive results, and mostly grouped all the ETGs into one large cluster.

iv. MINBINDER CRITERIA

This criterion minimizes Binder's loss, the posterior expectation of which is given in the following equation i.e. the sum of absolute deviations of the estimated similarity matrix to the posterior similarity matrix, or a matrix that contains the pairwise probabilities that two observations belong to the same cluster.

$$E(L(c^*, c)|y) = \sum_{i < k} |I_{c_i^* = c_j^*} - \pi_{ij}|$$

This kind of cluster analysis did not yield any distinctive results, and mostly grouped all the ETGs into one large cluster.

v. MPEAR CRITERIA

MPEAR maximizes the Posterior Expected Adjusted Rand index, shown in the following expression, where π_{ij} is estimated from the MCLUST Equation.

$$\frac{\sum_{i < j} I_{\{c_i^* = c_j^*\}} \pi_{ij} - \frac{\sum_{i < j} I_{\{c_i^* = c_j^*\}} \sum_{i < j} \pi_{ij}}{\binom{n}{2}}}{\frac{1}{2} \left[\sum_{i < j} I_{\{c_i^* = c_j^*\}} + \sum_{i < j} \pi_{ij} \right] - \frac{\sum_{i < j} I_{\{c_i^* = c_j^*\}} \sum_{i < j} \pi_{ij}}{\binom{n}{2}}}$$

This kind of cluster analysis did not yield any distinctive results, and mostly grouped all the ETGs into one large cluster.

K-MEANS CLUSTERING

K-means clustering is a popular method of cluster analysis in data mining. It groups the observations in k clusters, based on which dynamic cluster has the mean closest to an

observation's value. K-means clustering is computationally intense even with small data, and we also ran into this problem with our massive data. We weren't able to run a K-Means cluster analysis due to the processing power requirements; our attempt at running 100,000 of the 6,138,838 people almost crashed the Statistics Department servers.

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APPENDIX A: MPC INDEX

Table 7: Descriptions of the Major Practice Categories; see also Table 8.

MPC	Description
1	Infectious Diseases
2	Endocrinology
3	Hematology
4	Psychiatry
5	Chemical dependency
6	Neurology
7	Ophthalmology
8	Cardiology
9	Otolaryngology
10	Pulmonology
11	Gastroenterology
12	Hepatology
13	Nephrology
14	Urology
15	Obstetrics
16	Gynecology
17	Dermatology
18	Orthopedics & rheumatology
19	Neonatology
20	Preventive & administrative
21	Late effects, environmental trauma & poisonings
22	Isolated signs & symptoms

APPENDIX B: ETG INDEX

Table 8: A reference for the ETG numbers present in the data; see also Table 9.

MPC	ETG	Description
1	1301	AIDS
1	1302	HIV sero-positive w/o AIDS
1	1304	Septicemia
1	1306	Other infectious diseases
1	1308	Immunodeficiencies
1	1399	Infectious diseases signs & symptoms
2	1620	Lipidoses (Gauchers Disease or Fabry Disease or Mucopolipidosis I-III)
2	1621	Hyper-functioning thyroid gland
2	1622	Hypo-functioning thyroid gland
2	1623	Non-toxic goiter
2	1624	Malignant neoplasm of thyroid gland
2	1625	Non-malignant neoplasm of thyroid gland
2	1626	Other diseases of thyroid gland
2	1630	Diabetes
2	1631	Malignant neoplasm of pancreatic gland
2	1632	Non-malignant neoplasm of pancreas
2	1633	Malignant neoplasm of pituitary gland
2	1634	Non-malignant neoplasm of pituitary gland
2	1635	Hyper-functioning adrenal gland
2	1636	Hypo-functioning adrenal gland
2	1637	Malignant neoplasm of adrenal gland
2	1638	Non-malignant neoplasm of adrenal gland
2	1639	Hyper-functioning parathyroid gland
2	1640	Hypo-functioning parathyroid gland
2	1641	Malignant neoplasm of parathyroid gland
2	1642	Non-malignant neoplasm of parathyroid gland
2	1643	Female sex gland disorders
2	1644	Male sex gland disorders
2	1645	Nutritional deficiency
2	1646	Gout
2	1647	Hyperlipidemia or other
2	1648	Obesity
2	1649	Dehydration
2	1651	Other metabolic disorders
2	1652	Cystic fibrosis
2	1653	Other diseases of endocrine glands
2	1699	Endocrine disease signs & symptoms
3	2068	Agranulocytosis
3	2069	Thrombocytopenia
3	2070	Hemophilia
3	2072	Leukemia
3	2073	Other malignancies of blood & lymphatic systems

3	2074	Sickle-cell anemia
3	2076	Myelodysplastic syndromes
3	2078	Lymphoma
3	2079	Multitple myeloma
3	2080	Anemia of chronic diseases
3	2082	Iron deficiency anemia
3	2089	Other hematologic diseases
3	2099	Hematology signs & symptoms
<hr/>		
4	2388	Mood disorder or depressed
4	2389	Mood disorder or bipolar
4	2390	Dementia
4	2391	Organic drug or metabolic disorders
4	2392	Autism & child psychoses
4	2393	Psychotic & schizophrenic disorders
4	2394	Personality disorder
4	2397	Eating disorder
4	2398	Anxiety disorder or phobias
4	2400	Psychosexual disorder
4	2401	Attention deficit disorder
4	2402	Development disorder
4	2403	Somatoform disorder
4	2404	Mental retardation
4	2406	Other neuropsychological or behavioral disorders
4	2499	Psychiatric diseases signs & symptoms
<hr/>		
5	2711	Cocaine or amphetamine dependence
5	2712	Acute alcohol intoxication
5	2714	Alcohol dependence
5	2715	Opioid or barbituate dependence
5	2716	Other drug dependence
<hr/>		
6	3140	Viral meningitis
6	3141	Bacterial & fungal meningitis
6	3142	Viral encephalitis
6	3143	Nonviral encephalitis
6	3144	Parasitic encephalitis
6	3145	Toxic encephalitis
6	3147	Brain abscess
6	3148	Spinal abscess
6	3150	Inflammation of central nervous system or other
6	3151	Multiple sclerosis
6	3152	Epilepsy
6	3153	Malignant central nervous system metastases
6	3154	Malignant neoplasm of central nervous system
6	3156	Non-malignant neoplasm of central nervous system
6	3160	Cerebral vascular accident
6	3163	Brain trauma
6	3164	Alzheimer's disease
6	3165	Spinal trauma
6	3166	Amyotrophic lateral sclerosis
6	3167	Hereditary & degenerative diseases of central nervous system or other
6	3168	Parkinson's disease
6	3169	Migraine headache

6	3171	Congenital disorders of central nervous system
6	3173	Inflammation of cranial nerves
6	3175	Carpal tunnel syndrome
6	3177	Inflammation of non-cranial nerves except carpal tunnel
6	3179	Peripheral nerve neoplasm
6	3181	Traumatic disorders of cranial nerves
6	3183	Traumatic disorders of non-cranial nerves
6	3184	Congenital disorders of peripheral nerves
6	3186	Other neurological diseases
6	3199	Neurological diseases signs & symptoms
<hr/>		
7	3501	Internal eye infection
7	3503	External eye infection except conjunctivitis
7	3504	Conjunctivitis
7	3506	Inflammatory eye disease
7	3508	Malignant internal neoplasm of eye
7	3509	Malignant external neoplasm of eye
7	3510	Non-malignant internal neoplasm of eye
7	3511	Non-malignant external neoplasm of eye
7	3515	Glaucoma
7	3517	Cataract
7	3519	Trauma of eye
7	3521	Congenital anomaly of eye
7	3524	Diabetic retinopathy
7	3526	Non-diabetic vascular retinopathy
7	3528	Other vascular disorders of eye except retinopathies
7	3530	Macular degeneration
7	3532	Non-macular degeneration
7	3536	Visual disturbances
7	3537	Other & unspecified diseases & disorders of eye & adnexa
<hr/>		
8	3850	Heart or heart/lung transplant
8	3865	Ischemic heart disease
8	3866	Pulmonary heart disease
8	3868	Congestive heart failure
8	3869	Cardiomyopathy
8	3870	Aortic aneurysm
8	3871	Diastolic heart failure
8	3872	Cardiac infection
8	3874	Valvular disorder
8	3875	Severe ventricular rhythms
8	3876	Severe heart block
8	3877	Other conduction disorders
8	3878	Atrial fibrillation & flutter
8	3881	Hypertension
8	3883	Cardiac congenital disorder
8	3886	Cardiac trauma
8	3887	Other cardiac diseases
8	3890	Arterial inflammation
8	3892	Arterial embolism/thrombosis
8	3895	Atherosclerosis
8	3897	Arterial aneurysm except aorta
8	3898	Other non-inflammatory arterial diseases

8	3901	Arterial trauma
8	3903	Embolism & thrombosis of veins
8	3904	Disorders of lymphatic channels
8	3905	Phlebitis & thrombophlebitis of veins
8	3906	Varicose veins of lower extremity
8	3907	Other minor inflammatory diseases of veins
8	3909	Venous trauma
8	3910	Other diseases of veins
8	3999	Cardiovascular diseases signs & symptoms
9	4020	Infections of oral cavity
9	4022	Inflammation of oral cavity
9	4024	Trauma of oral cavity
9	4026	Other diseases of oral cavity
9	4029	Otitis media
9	4031	Tonsillitis or adenoiditis or pharyngitis
9	4032	Allergic rhinitis
9	4033	Acute sinusitis
9	4035	Chronic sinusitis
9	4037	Other infections of ear/nose/throat
9	4041	Other inflammatory conditions of ear/nose/throat
9	4043	Malignant neoplasm of ear/nose/throat
9	4045	Non-malignant neoplasm of ear/nose/throat
9	4047	Congenital & acquired anomalies of ear/nose/throat
9	4049	Hearing disorders
9	4051	Trauma to ear/nose/throat
9	4053	Other disorders of ear/nose/throat
9	4099	Otolaryngology diseases signs & symptoms
10	4370	Lung transplant
10	4372	Viral pneumonia
10	4374	Bacterial lung infections
10	4376	Fungal & other pneumonia
10	4378	Pulmonary tuberculosis
10	4380	Disseminated tuberculosis
10	4383	Acute bronchitis
10	4385	Minor infectious pulmonary diseases other than acute bronchitis
10	4388	Asthma
10	4393	Chronic obstructive pulmonary disease
10	4397	Occupational & environmental pulmonary diseases
10	4398	Other inflammatory lung diseases
10	4400	Malignant lung metastases
10	4401	Malignant neoplasm of pulmonary system
10	4403	Non-malignant neoplasm of pulmonary system
10	4404	Open chest trauma
10	4406	Closed chest trauma
10	4408	Pulmonary congenital anomalies
10	4410	Pulmonary embolism
10	4412	Acute respiratory distress syndrome
10	4415	Other pulmonary disorders
10	4499	Pulmonology diseases signs & symptoms
11	4731	Infection of stomach & esophagus
11	4733	Inflammation of esophagus

11	4735	Gastritis &/or duodenitis
11	4738	Ulcer
11	4740	Malignant neoplasm of stomach & esophagus
11	4742	Non-malignant neoplasm of stomach & esophagus
11	4744	Trauma of stomach or esophagus
11	4745	Anomaly of stomach or esophagus
11	4747	Appendicitis
11	4749	Diverticulitis
11	4750	Other infectious diseases of intestines & abdomen
11	4752	Other inflammation of intestines & abdomen
11	4753	Inflammatory bowel disease
11	4754	Malignant neoplasm of large intestine
11	4755	Malignant neoplasm of small intestine & abdomen
11	4756	Non-malignant neoplasm of intestines & abdomen
11	4758	Trauma of intestines & abdomen
11	4760	Congenital anomalies of intestines & abdomen
11	4761	Vascular diseases of intestines & abdomen
11	4763	Bowel obstruction
11	4764	Irritable bowel syndrome
11	4766	Hernias except hiatal
11	4768	Hiatal hernia
11	4769	Other diseases of intestines & abdomen
11	4771	Infection of rectum or anus
11	4774	Hemorrhoids
11	4776	Inflammation of rectum or anus
11	4778	Malignant neoplasm of rectum or anus
11	4780	Non-malignant neoplasm of rectum or anus
11	4782	Open trauma of rectum or anus
11	4783	Closed trauma of rectum or anus
11	4785	Other diseases & disorders of rectum & anus
11	4799	Gastroenterology diseases signs & symptoms
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12	5210	Liver transplant
12	5214	Infectious hepatitis
12	5216	Non-infectious hepatitis
12	5218	Cirrhosis
12	5219	Acute pancreatitis
12	5220	Chronic pancreatitis
12	5223	Cholelithiasis
12	5224	Malignant liver metastases
12	5225	Malignant neoplasm of hepatobiliary system
12	5227	Non-malignant neoplasm of hepatobiliary system
12	5230	Trauma of hepatobiliary system
12	5232	Other diseases of hepatobiliary system
12	5299	Hepatology diseases signs & symptoms
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13	5550	Kidney transplant
13	5552	Acute renal failure
13	5554	Chronic renal failure
13	5556	Acute renal inflammation
13	5558	Chronic renal inflammation
13	5560	Nephrotic syndrome
13	5561	Other renal conditions

13	5599	Nephrology diseases signs & symptoms
14	5871	Infection of upper genitourinary system
14	5872	Primary sexually transmitted diseases
14	5873	Disseminated sexually transmitted diseases
14	5874	Infection of lower genitourinary system not sexually transmitted
14	5878	Kidney stones
14	5880	Inflammation of genitourinary system except kidney stones
14	5882	Malignant neoplasm of prostate
14	5884	Non-malignant neoplasm of prostate
14	5886	Malignant neoplasm of genitourinary system except prostate
14	5888	Non-malignant neoplasm of genitourinary system except prostate
14	5890	Trauma to genitourinary system
14	5892	Urinary incontinence
14	5893	Male infertility
14	5895	Other diseases of genitourinary system
14	5899	Urological diseases signs & symptoms
15	6011	Pregnancy with delivery
15	6021	Ectopic pregnancy
15	6022	Spontaneous abortion
15	6023	Induced abortion
15	6024	Pregnancy not yet delivered
15	6099	Obstetric signs & symptoms
16	6332	Infection of ovary &/or fallopian tubes
16	6335	Infection of uterus
16	6337	Infection of cervix
16	6339	Monilial infection of vagina (yeast)
16	6340	Infection of vagina except monilial
16	6342	Endometriosis
16	6343	Inflammatory condition of female genital tract except endometriosis
16	6344	Malignant neoplasm of cervix
16	6345	Malignant neoplasm of ovaries
16	6346	Malignant neoplasm of uterus
16	6347	Non-malignant neoplasm of female genital tract
16	6349	Conditions associated with menstruation
16	6351	Conditions associated with infertility
16	6353	Other diseases of female genital tract
16	6356	Malignant neoplasm of breast
16	6358	Non-malignant neoplasm of breast
16	6360	Other disorders of breast
16	6399	Gynecological signs & symptoms
17	6667	Acne
17	6668	Contact dermatitis
17	6669	Psoriasis
17	6670	Chronic skin ulcers
17	6672	Bacterial infection of skin
17	6673	Viral skin infection
17	6675	Fungal skin infection
17	6676	Parasitic skin infection
17	6678	Other inflammation of skin
17	6680	Major malignant neoplasm of skin
17	6681	Minor malignant neoplasm of skin

17	6682	Non-malignant neoplasm of skin
17	6687	Burns
17	6689	Open wound
17	6690	Skin trauma except burn & open wound
17	6691	Other skin disorders
17	6699	Dermatological signs & symptoms
18	7111	Infection of bone & joint
18	7112	Juvenile rheumatoid arthritis
18	7114	Adult rheumatoid arthritis
18	7116	Lupus
18	7117	Autoimmune rheumatologic diseases except lupus
18	7119	Major joint inflammation
18	7120	Osteoporosis
18	7122	Localized joint degeneration
18	7129	Open fracture or dislocation of lower extremity
18	7131	Closed fracture or dislocation of lower extremity
18	7136	Malignant bone metastases
18	7138	Malignant neoplasm of bone & connective tissue of head & neck
18	7139	Malignant neoplasm of bone & connective tissue of other than head & neck
18	7140	Non-malignant neoplasm of bone & connective tissue of head & neck
18	7141	Non-malignant neoplasm of bone & connective tissue of other than head & neck
18	7143	Joint derangement
18	7145	Major trauma other than fracture or dislocation
18	7146	Minor orthopedic trauma
18	7148	Bursitis & tendinitis
18	7149	Other minor orthopedic disorders
18	7151	Orthopedic deformity
18	7199	Orthopedic signs & symptoms
19	7480	Uncomplicated neonatal management
19	7481	Chromosomal anomalies
19	7483	Chemical dependency related disorders of antenatal origin
19	7484	Mechanical related disorders of antenatal origin
19	7485	Other disorders of antenatal origin
19	7487	Other neonatal disorders of perinatal origin
19	7499	Neonatal diseases signs & symptoms
20	7790	Exposure to infectious diseases
20	7791	Routine inoculation
20	7792	Non-routine inoculation
20	7793	Prophylactic procedures other than inoculation & exposure to infectious diseases
20	7794	Routine exam
20	7796	Contraceptive management
20	7797	Conditional exam
20	7798	Major specific procedures not classified elsewhere
20	7800	Minor specific procedures not classified elsewhere
20	7801	Other preventative & administrative services
20	7802	Administrative services
21	8210	Late effects & late complications
21	8211	Environmental trauma
21	8212	Poisonings & toxic effects of drugs
22	8699	Isolated signs or symptoms & non-specific diagnoses or conditions

APPENDIX C: RAW RESULTS

Table 9: The first 1500 association rules with the strongest lift.

	lhs	rhs	support	confidence	lift	count
[1]	{1308,1651,7798,8210}	=> {5550}	1.14E-06	0.87500	17368.86	7
[2]	{1308,7798,8210}	=> {5550}	1.80E-06	0.84615	16796.26	11
[3]	{1308,1651,7798}	=> {5550}	1.31E-06	0.72727	14436.45	8
[4]	{1304,2391,7111,7122}	=> {3148}	1.31E-06	0.40000	11427.73	8
[5]	{1651,3165,7111,7122}	=> {3148}	1.31E-06	0.38095	10883.56	8
[6]	{4752,5554,7797}	=> {5210}	1.47E-06	0.21951	10823.08	9
[7]	{3881,4752,5554,7797}	=> {5210}	1.14E-06	0.20588	10151.06	7
[8]	{4374,4752,7797}	=> {5210}	1.31E-06	0.20000	9861.03	8
[9]	{1651,3154,5874,6356}	=> {3153}	1.14E-06	0.87500	9851.95	7
[10]	{1308,7798}	=> {5550}	2.62E-06	0.48485	9624.30	16
[11]	{1651,7798,8210}	=> {5550}	3.27E-06	0.45455	9022.78	20
[12]	{1304,2391,7111}	=> {3148}	1.47E-06	0.30000	8570.80	9
[13]	{1304,3165,7111,7122}	=> {3148}	1.14E-06	0.29167	8332.72	7
[14]	{1651,3154,3881,6356}	=> {3153}	1.64E-06	0.71429	8042.41	10
[15]	{1653,5225}	=> {5224}	1.80E-06	0.36667	7472.47	11
[16]	{7793,7798}	=> {5550}	1.96E-06	0.36364	7218.23	12
[17]	{1630,1651,3154,6356}	=> {3153}	1.14E-06	0.63636	7165.05	7
[18]	{1651,3154,6356}	=> {3153}	2.94E-06	0.62069	6988.58	18
[19]	{1304,3177,7111,7122}	=> {3148}	1.14E-06	0.24138	6896.05	7
[20]	{2388,5554,7111,7122}	=> {3148}	1.14E-06	0.24138	6896.05	7
[21]	{2391,7111,7122}	=> {3148}	1.31E-06	0.23529	6722.20	8
[22]	{1304,7111,7122,7149}	=> {3148}	1.14E-06	0.23333	6666.18	7
[23]	{3165,3881,7111,7122}	=> {3148}	1.47E-06	0.23077	6592.92	9
[24]	{1306,1651,7111,7122}	=> {3148}	1.96E-06	0.23077	6592.92	12
[25]	{1304,1306,7111,7122}	=> {3148}	1.96E-06	0.22642	6468.53	12
[26]	{1304,5554,7111,7122}	=> {3148}	2.29E-06	0.22581	6451.14	14
[27]	{3154,5874,6356}	=> {3153}	1.47E-06	0.56250	6333.40	9
[28]	{1304,7111,7122,7794}	=> {3148}	1.31E-06	0.21622	6177.15	8
[29]	{1304,4752,7111}	=> {3148}	1.14E-06	0.20588	5881.92	7
[30]	{1304,1306,1651,7111}	=> {3148}	1.47E-06	0.20455	5843.73	9
[31]	{6682,7798,8210}	=> {5550}	1.31E-06	0.27586	5475.90	8
[32]	{3152,3154,6356}	=> {3153}	1.14E-06	0.46667	5254.37	7
[33]	{1630,3154,6356}	=> {3153}	1.14E-06	0.43750	4925.97	7
[34]	{2068,7797,8210}	=> {5550}	1.14E-06	0.23333	4631.70	7

[35]	{3881,4383,5225}	=>	{5224}	1.47E-06	0.22500	4585.38	9
[36]	{3152,3171,6356}	=>	{3153}	1.14E-06	0.38889	4378.64	7
[37]	{3154,3881,6356}	=>	{3153}	2.29E-06	0.37838	4260.30	14
[38]	{1308,1647,8210}	=>	{5550}	1.31E-06	0.20000	3970.03	8
[39]	{1645,3163,3881,4406}	=>	{5230}	1.14E-06	0.58333	3847.26	7
[40]	{3866,3883,7151}	=>	{4408}	1.14E-06	0.35000	3767.33	7
[41]	{5218,5224}	=>	{5225}	1.31E-06	0.80000	3756.58	8
[42]	{5223,5224,7794}	=>	{5225}	1.14E-06	0.77778	3652.23	7
[43]	{3154,6356}	=>	{3153}	5.72E-06	0.31532	3550.25	35
[44]	{3881,4383,5224}	=>	{5225}	1.47E-06	0.75000	3521.80	9
[45]	{4752,5220,5225}	=>	{1631}	1.14E-06	0.70000	3279.45	7
[46]	{4733,5220,5225}	=>	{1631}	1.14E-06	0.70000	3279.45	7
[47]	{3881,5223,5224}	=>	{5225}	1.80E-06	0.68750	3228.31	11
[48]	{4043,4412}	=>	{7138}	1.14E-06	0.25000	3184.29	7
[49]	{5220,5225,6678}	=>	{1631}	1.31E-06	0.66667	3123.29	8
[50]	{1651,3881,5220,5225}	=>	{1631}	1.31E-06	0.66667	3123.29	8
[51]	{3163,3887,4406}	=>	{5230}	1.14E-06	0.46667	3077.80	7
[52]	{3154,6356,7122}	=>	{3153}	1.47E-06	0.27273	3070.74	9
[53]	{3881,5220,5225}	=>	{1631}	2.94E-06	0.64286	3011.74	18
[54]	{4404,7131}	=>	{5230}	1.64E-06	0.45455	2997.86	10
[55]	{1630,2068,3881,5220}	=>	{1631}	1.14E-06	0.63636	2981.32	7
[56]	{1304,5220,5223,5232}	=>	{1631}	1.14E-06	0.63636	2981.32	7
[57]	{2402,3167,4031,7481}	=>	{2404}	1.14E-06	0.41176	2883.69	7
[58]	{5223,5224}	=>	{5225}	3.43E-06	0.60000	2817.44	21
[59]	{1630,5220,5223,5232}	=>	{1631}	1.96E-06	0.60000	2810.96	12
[60]	{3883,4768,7794}	=>	{4408}	1.14E-06	0.25926	2790.62	7
[61]	{1651,2068,5220}	=>	{1631}	2.29E-06	0.58333	2732.88	14
[62]	{1651,2068,3881,5220}	=>	{1631}	1.14E-06	0.58333	2732.88	7
[63]	{4383,5224}	=>	{5225}	1.80E-06	0.57895	2718.58	11
[64]	{4374,4404}	=>	{5230}	1.14E-06	0.41176	2715.71	7
[65]	{3866,3883,4383}	=>	{4408}	1.14E-06	0.25000	2690.95	7
[66]	{4752,5224}	=>	{5225}	1.31E-06	0.57143	2683.27	8
[67]	{1651,5223,5224}	=>	{5225}	1.31E-06	0.57143	2683.27	8
[68]	{3881,5220,5223,5225}	=>	{1631}	1.31E-06	0.57143	2677.11	8
[69]	{5220,5225}	=>	{1631}	4.91E-06	0.56604	2651.85	30
[70]	{4043,7139}	=>	{7138}	1.80E-06	0.20755	2643.56	11
[71]	{1651,3152,6356}	=>	{3153}	1.80E-06	0.23404	2635.17	11
[72]	{3142,3150}	=>	{3143}	1.14E-06	0.35000	2625.58	7
[73]	{3154,4043}	=>	{7138}	1.14E-06	0.20588	2622.36	7
[74]	{1651,5220,5225}	=>	{1631}	1.80E-06	0.55000	2576.71	11
[75]	{3881,5224,7794}	=>	{5225}	1.96E-06	0.54545	2561.31	12
[76]	{1645,4043,6680}	=>	{7138}	1.14E-06	0.20000	2547.43	7
[77]	{3165,4033,4406}	=>	{5230}	1.31E-06	0.38095	2512.49	8

[78]	{3866,3883,7487}	=>	{4408}	2.13E-06	0.23214	2498.74	13
[79]	{2068,5220,5223}	=>	{1631}	1.47E-06	0.52941	2480.26	9
[80]	{1630,2068,5220}	=>	{1631}	1.47E-06	0.52941	2480.26	9
[81]	{1630,5220,5225}	=>	{1631}	1.64E-06	0.52632	2465.75	10
[82]	{3152,3160,4401}	=>	{3153}	1.14E-06	0.21875	2462.99	7
[83]	{3165,4406,4758}	=>	{5230}	1.14E-06	0.36842	2429.85	7
[84]	{2089,3163,4374,7131}	=>	{5230}	1.14E-06	0.36842	2429.85	7
[85]	{2089,3163,4406,7131}	=>	{5230}	1.47E-06	0.36000	2374.31	9
[86]	{3866,3883,7487,7794}	=>	{4408}	1.47E-06	0.21951	2362.79	9
[87]	{1651,4733,5224}	=>	{5225}	1.14E-06	0.50000	2347.86	7
[88]	{4755,5220,5223}	=>	{1631}	1.14E-06	0.50000	2342.47	7
[89]	{3163,3881,4374,4406}	=>	{5230}	1.31E-06	0.34783	2294.02	8
[90]	{1651,3152,7481}	=>	{2404}	1.31E-06	0.32000	2241.04	8
[91]	{4752,4769,5220}	=>	{1631}	1.64E-06	0.47619	2230.92	10
[92]	{2089,3177,3890,3903}	=>	{3892}	1.14E-06	0.70000	2224.37	7
[93]	{1630,4752,5220,5223}	=>	{1631}	1.47E-06	0.47368	2219.18	9
[94]	{1622,3881,5224}	=>	{5225}	1.31E-06	0.47059	2209.75	8
[95]	{1651,4755,5223}	=>	{5225}	1.31E-06	0.47059	2209.75	8
[96]	{1304,4752,5220,5223}	=>	{1631}	1.31E-06	0.47059	2204.68	8
[97]	{2089,6022,6682}	=>	{6099}	1.31E-06	0.30769	2200.21	8
[98]	{2089,3165,4406}	=>	{5230}	1.80E-06	0.33333	2198.43	11
[99]	{2089,3163,4406}	=>	{5230}	2.13E-06	0.33333	2198.43	13
[100]	{5554,7136}	=>	{2079}	2.29E-06	0.77778	2192.35	14
[101]	{3881,3903,7136}	=>	{2079}	1.14E-06	0.77778	2192.35	7
[102]	{2076,5224}	=>	{5225}	1.14E-06	0.46667	2191.34	7
[103]	{2069,5224}	=>	{5225}	1.14E-06	0.46667	2191.34	7
[104]	{1304,5224}	=>	{5225}	1.14E-06	0.46667	2191.34	7
[105]	{1631,5223,7791}	=>	{5225}	1.14E-06	0.46667	2191.34	7
[106]	{1651,3881,4755,5223}	=>	{5225}	1.14E-06	0.46667	2191.34	7
[107]	{5223,5225,7791}	=>	{1631}	1.14E-06	0.46667	2186.30	7
[108]	{3881,4415,5220,5223}	=>	{1631}	1.14E-06	0.46667	2186.30	7
[109]	{2089,3881,5220,5223}	=>	{1631}	1.14E-06	0.46667	2186.30	7
[110]	{2392,3152,6675}	=>	{2404}	1.14E-06	0.30435	2131.42	7
[111]	{6345,7139}	=>	{4755}	1.14E-06	0.38889	2130.47	7
[112]	{4755,5220}	=>	{1631}	2.29E-06	0.45161	2115.78	14
[113]	{1304,3881,7136}	=>	{2079}	1.47E-06	0.75000	2114.05	9
[114]	{1651,7136,7794}	=>	{2079}	1.47E-06	0.75000	2114.05	9
[115]	{3887,4758}	=>	{5230}	1.31E-06	0.32000	2110.49	8
[116]	{1645,3163,4406}	=>	{5230}	1.31E-06	0.32000	2110.49	8
[117]	{5219,5225}	=>	{1631}	1.47E-06	0.45000	2108.22	9
[118]	{5220,5223,5225}	=>	{1631}	1.47E-06	0.45000	2108.22	9
[119]	{1645,5224}	=>	{5225}	1.31E-06	0.44444	2086.99	8
[120]	{5224,6682}	=>	{5225}	1.31E-06	0.44444	2086.99	8

[121]	{1647,4740,7139}	=>	{4755}	1.31E-06	0.38095	2086.99	8
[122]	{1630,1651,5220,5232}	=>	{1631}	1.96E-06	0.44444	2082.19	12
[123]	{3881,5554,7136}	=>	{2079}	1.80E-06	0.73333	2067.07	11
[124]	{1647,3881,5224}	=>	{5225}	1.80E-06	0.44000	2066.12	11
[125]	{1631,4756,5223}	=>	{5225}	1.14E-06	0.43750	2054.38	7
[126]	{2073,4755}	=>	{7139}	1.31E-06	0.88889	2051.54	8
[127]	{7136,8210}	=>	{2079}	1.31E-06	0.72727	2049.99	8
[128]	{1304,1645,4752,5220}	=>	{1631}	1.14E-06	0.43750	2049.66	7
[129]	{4733,5224}	=>	{5225}	2.78E-06	0.43590	2046.86	17
[130]	{3890,3903,6689,7199}	=>	{3892}	1.14E-06	0.63636	2022.15	7
[131]	{1631,5224}	=>	{5225}	1.47E-06	0.42857	2012.46	9
[132]	{2089,3163,3887}	=>	{5230}	1.14E-06	0.30435	2007.26	7
[133]	{2406,3163,4406,7131}	=>	{5230}	1.14E-06	0.30435	2007.26	7
[134]	{4740,7139,7794}	=>	{4755}	1.96E-06	0.36364	1992.13	12
[135]	{1647,5224}	=>	{5225}	2.62E-06	0.42105	1977.15	16
[136]	{3881,4733,5224}	=>	{5225}	1.31E-06	0.42105	1977.15	8
[137]	{1645,7136}	=>	{2079}	1.14E-06	0.70000	1973.12	7
[138]	{1304,1651,7136}	=>	{2079}	1.14E-06	0.70000	1973.12	7
[139]	{1651,3881,7136,7794}	=>	{2079}	1.14E-06	0.70000	1973.12	7
[140]	{3517,3881,7136}	=>	{2079}	1.47E-06	0.69231	1951.43	9
[141]	{2068,3152,4401}	=>	{3154}	1.31E-06	0.72727	1949.33	8
[142]	{2089,3163,3165,7131}	=>	{5230}	1.64E-06	0.29412	1939.79	10
[143]	{5224,7199}	=>	{5225}	1.14E-06	0.41176	1933.54	7
[144]	{4799,5224}	=>	{5225}	1.14E-06	0.41176	1933.54	7
[145]	{2068,5220,7122}	=>	{1631}	1.14E-06	0.41176	1929.09	7
[146]	{4415,5220,5223}	=>	{1631}	1.14E-06	0.41176	1929.09	7
[147]	{4406,4758,7131}	=>	{5230}	1.14E-06	0.29167	1923.63	7
[148]	{2089,4406,7149}	=>	{5230}	1.14E-06	0.29167	1923.63	7
[149]	{1651,6345,8210}	=>	{4755}	1.14E-06	0.35000	1917.42	7
[150]	{4763,7139}	=>	{4755}	1.64E-06	0.34483	1889.09	10
[151]	{3152,5874,7481}	=>	{2404}	1.14E-06	0.26923	1885.49	7
[152]	{1622,5224}	=>	{5225}	1.96E-06	0.40000	1878.29	12
[153]	{1631,3881,5223,6678}	=>	{5225}	1.31E-06	0.40000	1878.29	8
[154]	{3881,4037,5225}	=>	{1631}	1.31E-06	0.40000	1873.97	8
[155]	{4769,5220,5232}	=>	{1631}	1.31E-06	0.40000	1873.97	8
[156]	{3881,5220,5223,5232}	=>	{1631}	1.64E-06	0.40000	1873.97	10
[157]	{2089,2716,3895,6672}	=>	{3892}	1.14E-06	0.58333	1853.64	7
[158]	{1306,1651,3895,7149}	=>	{3892}	1.14E-06	0.58333	1853.64	7
[159]	{2089,3177,3890,7151}	=>	{3892}	1.14E-06	0.58333	1853.64	7
[160]	{5224,6678}	=>	{5225}	1.80E-06	0.39286	1844.75	11
[161]	{5224,5552}	=>	{5225}	1.14E-06	0.38889	1826.12	7
[162]	{3881,5218,5223,8210}	=>	{5225}	1.14E-06	0.38889	1826.12	7
[163]	{1306,4752,5220}	=>	{1631}	1.14E-06	0.38889	1821.92	7

[164]	{1651,3881,3903,5225}	=>	{1631}	1.14E-06	0.38889	1821.92	7
[165]	{1304,1651,5220,5223}	=>	{1631}	2.29E-06	0.38889	1821.92	14
[166]	{5884,7136}	=>	{2079}	1.47E-06	0.64286	1812.04	9
[167]	{1651,3881,7136}	=>	{2079}	2.62E-06	0.64000	1803.99	16
[168]	{3165,3881,7136}	=>	{2079}	1.14E-06	0.63636	1793.74	7
[169]	{2068,5224}	=>	{5225}	1.31E-06	0.38095	1788.85	8
[170]	{3881,5223,5225,6678}	=>	{1631}	1.31E-06	0.38095	1784.74	8
[171]	{3881,5220,5223,8699}	=>	{1631}	1.31E-06	0.38095	1784.74	8
[172]	{3517,7136}	=>	{2079}	1.96E-06	0.63158	1780.25	12
[173]	{2089,4374,4406}	=>	{5230}	1.14E-06	0.26923	1775.66	7
[174]	{1645,4374,4406}	=>	{5230}	1.31E-06	0.26667	1758.75	8
[175]	{1630,3163,3881,4406}	=>	{5230}	1.31E-06	0.26667	1758.75	8
[176]	{5220,5223,5232}	=>	{1631}	2.94E-06	0.37500	1756.85	18
[177]	{1651,3167,7481}	=>	{2404}	1.14E-06	0.25000	1750.81	7
[178]	{2402,3152,3167,7481}	=>	{2404}	1.14E-06	0.25000	1750.81	7
[179]	{1304,3152,3167,3171}	=>	{2404}	1.14E-06	0.25000	1750.81	7
[180]	{1651,3881,5224}	=>	{5225}	2.62E-06	0.37209	1747.25	16
[181]	{7136,7199,7794}	=>	{2079}	1.31E-06	0.61538	1734.61	8
[182]	{4099,5224}	=>	{5225}	1.14E-06	0.36842	1730.01	7
[183]	{1631,5214}	=>	{5225}	1.14E-06	0.36842	1730.01	7
[184]	{3881,5224,6678}	=>	{5225}	1.14E-06	0.36842	1730.01	7
[185]	{3881,5225,5232}	=>	{1631}	1.14E-06	0.36842	1726.03	7
[186]	{4756,5223,5225}	=>	{1631}	1.14E-06	0.36842	1726.03	7
[187]	{1630,4401,5220}	=>	{1631}	1.14E-06	0.36842	1726.03	7
[188]	{2068,3881,5220}	=>	{1631}	1.80E-06	0.36667	1717.81	11
[189]	{3890,3895,7199,8210}	=>	{3892}	1.14E-06	0.53846	1711.05	7
[190]	{3163,4406,4758}	=>	{5230}	1.14E-06	0.25926	1709.89	7
[191]	{3163,4374,4406}	=>	{5230}	2.29E-06	0.25926	1709.89	14
[192]	{1630,2089,4406}	=>	{5230}	1.14E-06	0.25926	1709.89	7
[193]	{1630,3881,5220,5882}	=>	{1631}	1.31E-06	0.36364	1703.61	8
[194]	{2089,4406,6689}	=>	{5230}	1.31E-06	0.25806	1702.01	8
[195]	{1645,4406,7131}	=>	{5230}	1.31E-06	0.25806	1702.01	8
[196]	{2402,3152,7151,7481}	=>	{2404}	1.14E-06	0.24138	1690.44	7
[197]	{2402,2406,3152,4029}	=>	{2404}	1.14E-06	0.24138	1690.44	7
[198]	{4400,7149}	=>	{4403}	1.14E-06	0.41176	1689.57	7
[199]	{2089,4406,7131}	=>	{5230}	2.29E-06	0.25455	1678.80	14
[200]	{2068,5220}	=>	{1631}	4.09E-06	0.35714	1673.19	25
[201]	{5223,5225,5874}	=>	{1631}	1.64E-06	0.35714	1673.19	10
[202]	{1647,5223,5225}	=>	{1631}	1.96E-06	0.35294	1653.51	12
[203]	{1304,1630,5220,5223}	=>	{1631}	1.96E-06	0.35294	1653.51	12
[204]	{2089,4758}	=>	{5230}	3.43E-06	0.25000	1648.82	21
[205]	{3165,4406,4415}	=>	{5230}	1.47E-06	0.25000	1648.82	9
[206]	{1653,5225}	=>	{4755}	1.47E-06	0.30000	1643.51	9

[207]	{3881,4756,5224}	=>	{5225}	1.14E-06	0.35000	1643.51	7
[208]	{4752,5223,5225}	=>	{1631}	1.14E-06	0.35000	1639.73	7
[209]	{1630,1651,4769,5220}	=>	{1631}	1.14E-06	0.35000	1639.73	7
[210]	{3152,4374,4397,4733}	=>	{2404}	1.14E-06	0.23333	1634.09	7
[211]	{2089,3903,5220}	=>	{1631}	1.31E-06	0.34783	1629.54	8
[212]	{3881,5223,5225,5874}	=>	{1631}	1.31E-06	0.34783	1629.54	8
[213]	{1651,5220,5223,6678}	=>	{1631}	1.31E-06	0.34783	1629.54	8
[214]	{2393,2406,2715,2716}	=>	{2711}	1.31E-06	0.33333	1629.05	8
[215]	{1631,3865,3881,5223}	=>	{5225}	1.47E-06	0.34615	1625.44	9
[216]	{3903,5220,7794}	=>	{1631}	1.64E-06	0.34483	1615.49	10
[217]	{3163,3881,4406,7131}	=>	{5230}	1.80E-06	0.24444	1612.18	11
[218]	{3881,7136,7794}	=>	{2079}	2.62E-06	0.57143	1610.71	16
[219]	{3881,4752,5225}	=>	{1631}	1.80E-06	0.34375	1610.45	11
[220]	{1304,3881,4752,5220}	=>	{1631}	1.80E-06	0.34375	1610.45	11
[221]	{1651,3163,4406}	=>	{5230}	1.64E-06	0.24390	1608.61	10
[222]	{1630,3163,4406}	=>	{5230}	1.47E-06	0.24324	1604.26	9
[223]	{1630,5224}	=>	{5225}	2.78E-06	0.34000	1596.55	17
[224]	{2089,6022,6351}	=>	{6099}	1.31E-06	0.22222	1589.04	8
[225]	{2089,3177,3890,3895}	=>	{3892}	1.47E-06	0.50000	1588.84	9
[226]	{2402,3152,4031,7481}	=>	{2404}	1.14E-06	0.22581	1581.38	7
[227]	{7136,7794}	=>	{2079}	4.58E-06	0.56000	1578.49	28
[228]	{1631,3517,5223}	=>	{5225}	1.31E-06	0.33333	1565.24	8
[229]	{4404}	=>	{5230}	5.23E-06	0.23704	1563.33	32
[230]	{3517,5223,5225}	=>	{1631}	1.31E-06	0.33333	1561.64	8
[231]	{1630,5223,5225}	=>	{1631}	2.94E-06	0.33333	1561.64	18
[232]	{4752,5220,5232}	=>	{1631}	1.14E-06	0.33333	1561.64	7
[233]	{1304,1630,4752,5220}	=>	{1631}	1.31E-06	0.33333	1561.64	8
[234]	{1630,5220,5223,5874}	=>	{1631}	1.80E-06	0.33333	1561.64	11
[235]	{1630,4752,5223,5232}	=>	{1631}	1.14E-06	0.33333	1561.64	7
[236]	{2393,2714,2715,2716}	=>	{2711}	1.14E-06	0.31818	1555.01	7
[237]	{2393,2715,2716,6690}	=>	{2711}	1.14E-06	0.31818	1555.01	7
[238]	{1651,7136}	=>	{2079}	3.76E-06	0.54762	1543.59	23
[239]	{3881,4406,5552}	=>	{5230}	1.14E-06	0.23333	1538.90	7
[240]	{3171,3881,4406}	=>	{5230}	1.14E-06	0.23333	1538.90	7
[241]	{2089,3165,3887}	=>	{5230}	1.14E-06	0.23333	1538.90	7
[242]	{3167,4031,7481}	=>	{2404}	1.47E-06	0.21951	1537.30	9
[243]	{2392,3152,7481}	=>	{2404}	1.14E-06	0.21875	1531.96	7
[244]	{1630,3881,5223,5225}	=>	{1631}	2.29E-06	0.32558	1525.33	14
[245]	{5232,7139}	=>	{4755}	1.64E-06	0.27778	1521.76	10
[246]	{3506,7136}	=>	{2079}	1.14E-06	0.53846	1517.78	7
[247]	{1651,7122,7136}	=>	{2079}	1.14E-06	0.53846	1517.78	7
[248]	{1630,3881,5224}	=>	{5225}	1.64E-06	0.32258	1514.75	10
[249]	{3152,3167,4374,7151}	=>	{2404}	1.31E-06	0.21622	1514.22	8

[250]	{3881,5224}	=>	{5225}	7.20E-06	0.32117	1508.12	44
[251]	{1622,2402,4029,4035}	=>	{7481}	1.47E-06	0.81818	1500.82	9
[252]	{1622,3504,3883,7794}	=>	{7481}	1.47E-06	0.81818	1500.82	9
[253]	{1622,4752,5220}	=>	{1631}	1.31E-06	0.32000	1499.18	8
[254]	{1304,5220,5232}	=>	{1631}	1.31E-06	0.32000	1499.18	8
[255]	{5220,5223,8210}	=>	{1631}	1.31E-06	0.32000	1499.18	8
[256]	{1647,3881,5223,5225}	=>	{1631}	1.31E-06	0.32000	1499.18	8
[257]	{1651,5224}	=>	{5225}	3.60E-06	0.31884	1497.19	22
[258]	{1651,3903,5225}	=>	{1631}	1.14E-06	0.31818	1490.66	7
[259]	{1622,5223,5225}	=>	{1631}	1.14E-06	0.31818	1490.66	7
[260]	{4752,5220,8210}	=>	{1631}	1.14E-06	0.31818	1490.66	7
[261]	{1630,5220,5223,5552}	=>	{1631}	1.14E-06	0.31818	1490.66	7
[262]	{1630,3881,4415,5220}	=>	{1631}	1.14E-06	0.31818	1490.66	7
[263]	{1304,1630,1645,5220}	=>	{1631}	1.14E-06	0.31818	1490.66	7
[264]	{4406,4799,6689}	=>	{5230}	1.14E-06	0.22581	1489.26	7
[265]	{5224,7794}	=>	{5225}	3.11E-06	0.31667	1486.98	19
[266]	{2073,4401}	=>	{7139}	1.47E-06	0.64286	1483.70	9
[267]	{7131,7136}	=>	{2079}	1.64E-06	0.52632	1483.55	10
[268]	{3890,3895,7199,7797}	=>	{3892}	1.14E-06	0.46667	1482.91	7
[269]	{3881,5220,5223,6678}	=>	{1631}	1.96E-06	0.31579	1479.45	12
[270]	{7136,7149}	=>	{2079}	1.80E-06	0.52381	1476.48	11
[271]	{2402,3152,3167,7151}	=>	{2404}	1.96E-06	0.21053	1474.37	12
[272]	{3881,4752,5220,5223}	=>	{1631}	1.80E-06	0.31429	1472.41	11
[273]	{2068,4733,6346}	=>	{6345}	1.14E-06	0.63636	1470.94	7
[274]	{1631,1651,3881,5223}	=>	{5225}	2.45E-06	0.31250	1467.42	15
[275]	{2406,4406,7131}	=>	{5230}	1.31E-06	0.22222	1465.62	8
[276]	{4499,5220,5223}	=>	{1631}	1.47E-06	0.31034	1453.95	9
[277]	{1630,3881,4766,5220}	=>	{1631}	1.47E-06	0.31034	1453.95	9
[278]	{3890,3895,5552,5874}	=>	{3892}	1.64E-06	0.45455	1444.40	10
[279]	{3163,4374,7129}	=>	{5230}	1.14E-06	0.21875	1442.72	7
[280]	{1630,5220,5223,6672}	=>	{1631}	1.31E-06	0.30769	1441.52	8
[281]	{3152,3167,4374,4397}	=>	{2404}	1.31E-06	0.20513	1436.56	8
[282]	{1651,3903,5220}	=>	{1631}	2.45E-06	0.30612	1434.16	15
[283]	{1651,3881,5223,5225}	=>	{1631}	2.45E-06	0.30612	1434.16	15
[284]	{2392,3152,6690}	=>	{2404}	1.64E-06	0.20408	1429.24	10
[285]	{1631,1651,3881,3903}	=>	{5225}	1.14E-06	0.30435	1429.14	7
[286]	{1622,2402,3504,4029}	=>	{7481}	1.14E-06	0.77778	1426.71	7
[287]	{1630,4374,4406}	=>	{5230}	1.31E-06	0.21622	1426.01	8
[288]	{1304,1630,5220,5552}	=>	{1631}	1.14E-06	0.30435	1425.85	7
[289]	{1304,1630,5220,6672}	=>	{1631}	1.14E-06	0.30435	1425.85	7
[290]	{2714,2715,5214}	=>	{2711}	1.14E-06	0.29167	1425.42	7
[291]	{2406,2715,2716,4035}	=>	{2711}	1.14E-06	0.29167	1425.42	7
[292]	{4756,5224}	=>	{5225}	1.64E-06	0.30303	1422.95	10

[293]	{1630,4769,5220}	=>	{1631}	2.78E-06	0.30357	1422.21	17
[294]	{3881,5552,7139}	=>	{4755}	1.14E-06	0.25926	1420.31	7
[295]	{3903,7136}	=>	{2079}	1.47E-06	0.50000	1409.37	9
[296]	{1304,7136}	=>	{2079}	1.96E-06	0.50000	1409.37	12
[297]	{3881,7136,7199}	=>	{2079}	1.31E-06	0.50000	1409.37	8
[298]	{3881,4740,7139}	=>	{4755}	1.64E-06	0.25641	1404.71	10
[299]	{2402,3167,7481}	=>	{2404}	1.80E-06	0.20000	1400.65	11
[300]	{1651,2392,3152}	=>	{2404}	1.31E-06	0.20000	1400.65	8
[301]	{4740,7139}	=>	{4755}	3.93E-06	0.25532	1398.73	24
[302]	{4769,5220,5223}	=>	{1631}	2.29E-06	0.29787	1395.51	14
[303]	{3881,7136}	=>	{2079}	7.52E-06	0.49462	1394.21	46
[304]	{5218,5223,8210}	=>	{5225}	1.31E-06	0.29630	1391.33	8
[305]	{3165,4406,7149}	=>	{5230}	1.31E-06	0.21053	1388.48	8
[306]	{1630,5220,5882}	=>	{1631}	1.31E-06	0.29630	1388.13	8
[307]	{3881,4769,5220,5223}	=>	{1631}	1.31E-06	0.29630	1388.13	8
[308]	{1306,1651,3881,5220}	=>	{1631}	1.31E-06	0.29630	1388.13	8
[309]	{1651,3881,5220,8699}	=>	{1631}	1.31E-06	0.29630	1388.13	8
[310]	{3890,3895,6689,7199}	=>	{3892}	1.64E-06	0.43478	1381.60	10
[311]	{1651,3165,4406}	=>	{5230}	1.47E-06	0.20930	1380.41	9
[312]	{4374,4406,7131}	=>	{5230}	1.64E-06	0.20833	1374.02	10
[313]	{1630,3881,4769,5220}	=>	{1631}	1.96E-06	0.29268	1371.20	12
[314]	{3517,5224}	=>	{5225}	1.14E-06	0.29167	1369.59	7
[315]	{2388,5224}	=>	{5225}	1.14E-06	0.29167	1369.59	7
[316]	{3875,4374,4763,5874}	=>	{4397}	1.14E-06	1.00000	1368.97	7
[317]	{1651,2393,2715,2716}	=>	{2711}	1.14E-06	0.28000	1368.41	7
[318]	{1651,4752,5225}	=>	{1631}	1.14E-06	0.29167	1366.44	7
[319]	{3881,4735,5220,5223}	=>	{1631}	1.14E-06	0.29167	1366.44	7
[320]	{1647,3881,5220,5882}	=>	{1631}	1.14E-06	0.29167	1366.44	7
[321]	{5224,7149}	=>	{5225}	1.47E-06	0.29032	1363.28	9
[322]	{1630,5220,5223,7794}	=>	{1631}	1.47E-06	0.29032	1360.14	9
[323]	{4406,4758}	=>	{5230}	3.27E-06	0.20619	1359.86	20
[324]	{3163,4758,7131}	=>	{5230}	1.31E-06	0.20513	1352.88	8
[325]	{4752,5220,5223}	=>	{1631}	2.78E-06	0.28814	1349.90	17
[326]	{1304,5220,5223}	=>	{1631}	3.43E-06	0.28767	1347.72	21
[327]	{5224}	=>	{5225}	1.41E-05	0.28667	1346.11	86
[328]	{2716,3890,3895,6689}	=>	{3892}	1.80E-06	0.42308	1344.40	11
[329]	{1631,3865,5223}	=>	{5225}	1.64E-06	0.28571	1341.64	10
[330]	{1631,3881,4037}	=>	{5225}	1.31E-06	0.28571	1341.64	8
[331]	{1631,3881,5223,5874}	=>	{5225}	1.31E-06	0.28571	1341.64	8
[332]	{1304,3881,5218,6678}	=>	{5225}	1.31E-06	0.28571	1341.64	8
[333]	{3165,5874,7139}	=>	{3154}	1.14E-06	0.50000	1340.17	7
[334]	{1630,4415,5220}	=>	{1631}	1.31E-06	0.28571	1338.55	8
[335]	{2089,5220,5223}	=>	{1631}	1.31E-06	0.28571	1338.55	8

[336]	{1630,3881,4752,5220}	=>	{1631}	1.96E-06	0.28571	1338.55	12
[337]	{1304,3881,5220,6672}	=>	{1631}	1.31E-06	0.28571	1338.55	8
[338]	{1630,3881,4037,5220}	=>	{1631}	1.31E-06	0.28571	1338.55	8
[339]	{2388,3890,3895,8210}	=>	{3892}	1.31E-06	0.42105	1337.97	8
[340]	{3177,3890,3895,4374}	=>	{3892}	1.31E-06	0.42105	1337.97	8
[341]	{4383,7136}	=>	{2079}	1.47E-06	0.47368	1335.19	9
[342]	{3890,3895,7797,8210}	=>	{3892}	1.64E-06	0.41667	1324.03	10
[343]	{3165,4033,5230}	=>	{4406}	1.31E-06	0.80000	1321.91	8
[344]	{4778,5224}	=>	{5225}	1.47E-06	0.28125	1320.67	9
[345]	{1645,3881,4406}	=>	{5230}	1.80E-06	0.20000	1319.06	11
[346]	{3163,3165,4406,7131}	=>	{5230}	1.96E-06	0.20000	1319.06	12
[347]	{6682,7136}	=>	{2079}	1.14E-06	0.46667	1315.41	7
[348]	{7122,7136,7794}	=>	{2079}	1.14E-06	0.46667	1315.41	7
[349]	{1622,1631,5223}	=>	{5225}	1.14E-06	0.28000	1314.80	7
[350]	{3881,4755,5225}	=>	{1631}	1.14E-06	0.28000	1311.78	7
[351]	{1651,5220,6356}	=>	{1631}	1.14E-06	0.28000	1311.78	7
[352]	{3881,5223,5225,7794}	=>	{1631}	1.14E-06	0.28000	1311.78	7
[353]	{1622,2402,3536,4029}	=>	{7481}	1.64E-06	0.71429	1310.24	10
[354]	{1622,2402,4035,7794}	=>	{7481}	1.64E-06	0.71429	1310.24	10
[355]	{2716,3890,3895,7797}	=>	{3892}	1.14E-06	0.41176	1308.45	7
[356]	{3890,3895,4756,5874}	=>	{3892}	1.14E-06	0.41176	1308.45	7
[357]	{1651,2393,2716,8212}	=>	{2711}	1.31E-06	0.26667	1303.24	8
[358]	{1630,3881,5220,5232}	=>	{1631}	2.45E-06	0.27778	1301.37	15
[359]	{1304,3881,5220,5223}	=>	{1631}	2.45E-06	0.27778	1301.37	15
[360]	{2089,3890,3895,7151}	=>	{3892}	1.47E-06	0.40909	1299.96	9
[361]	{3521,3883,4031,4035}	=>	{7481}	1.96E-06	0.70588	1294.83	12
[362]	{2402,3883,4035,7151}	=>	{7481}	1.96E-06	0.70588	1294.83	12
[363]	{3903,5220,5223}	=>	{1631}	1.31E-06	0.27586	1292.40	8
[364]	{1306,1651,5220}	=>	{1631}	1.80E-06	0.27500	1288.36	11
[365]	{1304,4752,5220}	=>	{1631}	2.29E-06	0.27451	1286.06	14
[366]	{3163,4374,4415,7131}	=>	{4406}	1.14E-06	0.77778	1285.19	7
[367]	{1622,2402,3521}	=>	{7481}	1.14E-06	0.70000	1284.03	7
[368]	{3883,4374,4397,7794}	=>	{7481}	1.14E-06	0.70000	1284.03	7
[369]	{1308,3883,4374,7794}	=>	{7481}	1.14E-06	0.70000	1284.03	7
[370]	{2402,3883,4374,4733}	=>	{7481}	1.14E-06	0.70000	1284.03	7
[371]	{2402,3883,4029,6672}	=>	{7481}	1.14E-06	0.70000	1284.03	7
[372]	{1631,5223,6678}	=>	{5225}	1.47E-06	0.27273	1280.65	9
[373]	{4752,5225}	=>	{1631}	2.45E-06	0.27273	1277.71	15
[374]	{5223,5225,6678}	=>	{1631}	1.47E-06	0.27273	1277.71	9
[375]	{1651,3881,4769,5220}	=>	{1631}	1.47E-06	0.27273	1277.71	9
[376]	{4755,5223}	=>	{5225}	2.62E-06	0.27119	1273.42	16
[377]	{3887,5230}	=>	{4758}	1.31E-06	0.25000	1269.49	8
[378]	{4752,4753,4776,6672}	=>	{4771}	1.64E-06	0.83333	1268.33	10

[379]	{4738,5225}	=>	{1631}	1.64E-06	0.27027	1266.20	10
[380]	{1651,3881,5220,5232}	=>	{1631}	1.64E-06	0.27027	1266.20	10
[381]	{3881,5220,5223,6672}	=>	{1631}	1.64E-06	0.27027	1266.20	10
[382]	{3881,5218,5223,6678}	=>	{5225}	1.14E-06	0.26923	1264.23	7
[383]	{3881,5223,6678,8210}	=>	{5225}	1.14E-06	0.26923	1264.23	7
[384]	{5223,5225,7794}	=>	{1631}	1.80E-06	0.26829	1256.93	11
[385]	{1630,1631,3881,4415}	=>	{5220}	1.14E-06	1.00000	1253.09	7
[386]	{1630,3881,7136}	=>	{2079}	1.31E-06	0.44444	1252.77	8
[387]	{2089,3890,3895,3903}	=>	{3892}	2.13E-06	0.39394	1251.81	13
[388]	{1630,1647,5220,5232}	=>	{1631}	1.31E-06	0.26667	1249.32	8
[389]	{1651,4755,8210}	=>	{6345}	1.14E-06	0.53846	1244.64	7
[390]	{3881,3903,5225}	=>	{1631}	1.47E-06	0.26471	1240.13	9
[391]	{3865,3881,5223,5225}	=>	{1631}	1.47E-06	0.26471	1240.13	9
[392]	{1651,3881,3903,5220}	=>	{1631}	1.47E-06	0.26471	1240.13	9
[393]	{1630,3163,5230}	=>	{4406}	1.47E-06	0.75000	1239.29	9
[394]	{2089,3895,6689,8210}	=>	{3892}	1.14E-06	0.38889	1235.76	7
[395]	{1651,3890,3895,5223}	=>	{3892}	1.14E-06	0.38889	1235.76	7
[396]	{1645,3890,3895,4374}	=>	{3892}	1.14E-06	0.38889	1235.76	7
[397]	{3881,4755,5223}	=>	{5225}	1.64E-06	0.26316	1235.72	10
[398]	{1631,5223,5874}	=>	{5225}	1.64E-06	0.26316	1235.72	10
[399]	{1304,2391,3148}	=>	{7111}	1.47E-06	1.00000	1235.62	9
[400]	{2391,3148,7122}	=>	{7111}	1.31E-06	1.00000	1235.62	8
[401]	{2388,3148,5554}	=>	{7111}	1.31E-06	1.00000	1235.62	8
[402]	{1630,3148,4393}	=>	{7111}	1.14E-06	1.00000	1235.62	7
[403]	{1304,2391,3148,7122}	=>	{7111}	1.31E-06	1.00000	1235.62	8
[404]	{2388,3148,5554,7122}	=>	{7111}	1.14E-06	1.00000	1235.62	7
[405]	{1630,3148,3881,4393}	=>	{7111}	1.14E-06	1.00000	1235.62	7
[406]	{1630,3887,3895,6670}	=>	{7111}	1.14E-06	1.00000	1235.62	7
[407]	{4733,6670,8210,8699}	=>	{7111}	1.14E-06	1.00000	1235.62	7
[408]	{3890,6672,7119,8210}	=>	{7111}	1.47E-06	1.00000	1235.62	9
[409]	{1645,4752,5220}	=>	{1631}	1.64E-06	0.26316	1232.88	10
[410]	{1647,4740,4755}	=>	{7139}	1.31E-06	0.53333	1230.92	8
[411]	{3881,5223,5225}	=>	{1631}	5.56E-06	0.26154	1225.29	34
[412]	{1622,2402,4035}	=>	{7481}	2.29E-06	0.66667	1222.89	14
[413]	{1622,3521,4029,4031}	=>	{7481}	1.31E-06	0.66667	1222.89	8
[414]	{1630,1647,5220,5223}	=>	{1631}	1.96E-06	0.26087	1222.16	12
[415]	{2714,2715,4099}	=>	{2711}	1.14E-06	0.25000	1221.79	7
[416]	{5220,5223,6672}	=>	{1631}	2.29E-06	0.25926	1214.61	14
[417]	{1630,1651,3903,5220}	=>	{1631}	1.14E-06	0.25926	1214.61	7
[418]	{1630,3874,3881,5220}	=>	{1631}	1.14E-06	0.25926	1214.61	7
[419]	{4374,4397,4763,5874}	=>	{3875}	1.14E-06	0.33333	1211.62	7
[420]	{1630,5220,5232}	=>	{1631}	3.76E-06	0.25843	1210.71	23
[421]	{3890,3895,5874,7797}	=>	{3892}	1.31E-06	0.38095	1210.54	8

[422]	{5225,5232}	=>	{1631}	1.31E-06	0.25806	1209.02	8
[423]	{4037,5225}	=>	{1631}	1.31E-06	0.25806	1209.02	8
[424]	{1647,5220,5882}	=>	{1631}	1.31E-06	0.25806	1209.02	8
[425]	{3881,5220,5223,5552}	=>	{1631}	1.31E-06	0.25806	1209.02	8
[426]	{1651,5223,5225}	=>	{1631}	2.78E-06	0.25758	1206.73	17
[427]	{4752,5220,6672}	=>	{1631}	1.47E-06	0.25714	1204.70	9
[428]	{3160,5220,5223}	=>	{1631}	1.47E-06	0.25714	1204.70	9
[429]	{4740,4755,7794}	=>	{7139}	1.96E-06	0.52174	1204.16	12
[430]	{3163,3881,4374,5230}	=>	{4406}	1.31E-06	0.72727	1201.74	8
[431]	{1630,3163,3881,5230}	=>	{4406}	1.31E-06	0.72727	1201.74	8
[432]	{2391,3163,3165,7131}	=>	{4406}	1.31E-06	0.72727	1201.74	8
[433]	{1304,1645,5220}	=>	{1631}	1.64E-06	0.25641	1201.27	10
[434]	{3881,4415,5220}	=>	{1631}	1.80E-06	0.25581	1198.47	11
[435]	{1646,7139}	=>	{4755}	1.14E-06	0.21875	1198.39	7
[436]	{3881,4022,7138}	=>	{4043}	1.14E-06	1.00000	1196.68	7
[437]	{3165,7136}	=>	{2079}	1.80E-06	0.42308	1192.54	11
[438]	{3890,3895,4393,8210}	=>	{3892}	1.47E-06	0.37500	1191.63	9
[439]	{2089,3890,3895,8210}	=>	{3892}	1.47E-06	0.37500	1191.63	9
[440]	{2716,3890,3895,5874}	=>	{3892}	1.47E-06	0.37500	1191.63	9
[441]	{2716,3895,6689,7122}	=>	{3892}	1.47E-06	0.37500	1191.63	9
[442]	{1631,1651,5223}	=>	{5225}	2.78E-06	0.25373	1191.45	17
[443]	{1651,3152,3153}	=>	{3154}	1.31E-06	0.44444	1191.26	8
[444]	{3903,5220}	=>	{1631}	5.23E-06	0.25397	1189.82	32
[445]	{2391,2393,2715,2716}	=>	{2711}	1.47E-06	0.24324	1188.77	9
[446]	{3521,3883,4029,4035}	=>	{7481}	1.80E-06	0.64706	1186.92	11
[447]	{3881,5880,7139}	=>	{4755}	1.31E-06	0.21622	1184.51	8
[448]	{2393,2714,2715}	=>	{2711}	1.14E-06	0.24138	1179.66	7
[449]	{2716,3890,3895,6672}	=>	{3892}	2.78E-06	0.36957	1174.36	17
[450]	{1631,3881,4755}	=>	{5225}	1.14E-06	0.25000	1173.93	7
[451]	{1631,3881,5552}	=>	{5225}	1.47E-06	0.25000	1173.93	9
[452]	{1631,5223,7794}	=>	{5225}	1.80E-06	0.25000	1173.93	11
[453]	{1622,1631,1651}	=>	{5225}	1.14E-06	0.25000	1173.93	7
[454]	{6345,8210}	=>	{4755}	1.96E-06	0.21429	1173.93	12
[455]	{2076,5220}	=>	{1631}	1.64E-06	0.25000	1171.23	10
[456]	{4754,5220}	=>	{1631}	1.80E-06	0.25000	1171.23	11
[457]	{1651,3517,5225}	=>	{1631}	1.14E-06	0.25000	1171.23	7
[458]	{3881,4401,5220}	=>	{1631}	1.14E-06	0.25000	1171.23	7
[459]	{1651,4752,5220,5223}	=>	{1631}	1.14E-06	0.25000	1171.23	7
[460]	{3890,3895,4393,7145}	=>	{3892}	1.14E-06	0.36842	1170.72	7
[461]	{2089,3895,3903,6690}	=>	{3892}	1.14E-06	0.36842	1170.72	7
[462]	{2716,3865,3895,4756}	=>	{3892}	1.14E-06	0.36842	1170.72	7
[463]	{1636,1647,3881,8699}	=>	{1635}	1.14E-06	0.35000	1168.04	7
[464]	{3866,3883,4029,4388}	=>	{7481}	1.14E-06	0.63636	1167.30	7

[465]	{1631,1653}	=>	{4755}	1.64E-06	0.21277	1165.61	10
[466]	{1651,3890,3895,7145}	=>	{3892}	1.80E-06	0.36667	1165.15	11
[467]	{7136}	=>	{2079}	1.31E-05	0.41237	1162.37	80
[468]	{5223,5225}	=>	{1631}	8.18E-06	0.24752	1159.64	50
[469]	{3177,3881,6345}	=>	{4755}	1.80E-06	0.21154	1158.88	11
[470]	{2406,3163,5230,7131}	=>	{4406}	1.14E-06	0.70000	1156.67	7
[471]	{1645,3163,3881,5230}	=>	{4406}	1.14E-06	0.70000	1156.67	7
[472]	{3881,4755,6346}	=>	{6345}	1.47E-06	0.50000	1155.74	9
[473]	{1651,2068,6346}	=>	{6345}	1.14E-06	0.50000	1155.74	7
[474]	{3154,7138}	=>	{7139}	1.80E-06	0.50000	1153.99	11
[475]	{3881,5220,5882}	=>	{1631}	2.29E-06	0.24561	1150.69	14
[476]	{1653,5224}	=>	{5225}	1.80E-06	0.24444	1147.85	11
[477]	{7136,7199}	=>	{2079}	2.13E-06	0.40625	1145.11	13
[478]	{3890,3895,5552,6672}	=>	{3892}	1.47E-06	0.36000	1143.96	9
[479]	{2716,3184,3890,3895}	=>	{3892}	1.47E-06	0.36000	1143.96	9
[480]	{2089,2716,3895,7122}	=>	{3892}	1.47E-06	0.36000	1143.96	9
[481]	{3865,5223,5225}	=>	{1631}	1.64E-06	0.24390	1142.67	10
[482]	{1631,1651,6678}	=>	{5225}	1.47E-06	0.24324	1142.20	9
[483]	{5220,5223,6678}	=>	{1631}	3.11E-06	0.24359	1141.20	19
[484]	{2089,2716,3890,3895}	=>	{3892}	2.29E-06	0.35897	1140.70	14
[485]	{1630,4752,5220}	=>	{1631}	2.78E-06	0.24286	1137.77	17
[486]	{1631,1651,3517}	=>	{5225}	1.14E-06	0.24138	1133.45	7
[487]	{3881,4410,5220}	=>	{1631}	1.14E-06	0.24138	1130.85	7
[488]	{2388,3881,5220,6672}	=>	{1631}	1.14E-06	0.24138	1130.85	7
[489]	{1308,3883,4029,4733}	=>	{7481}	1.31E-06	0.61538	1128.82	8
[490]	{2402,3167,3883,4388}	=>	{7481}	1.31E-06	0.61538	1128.82	8
[491]	{2402,3883,4047,4374}	=>	{7481}	1.31E-06	0.61538	1128.82	8
[492]	{5552,6345}	=>	{4755}	1.14E-06	0.20588	1127.90	7
[493]	{4410,7139}	=>	{4755}	1.14E-06	0.20588	1127.90	7
[494]	{1651,2068,6345}	=>	{4755}	1.14E-06	0.20588	1127.90	7
[495]	{1304,1630,1651,5220}	=>	{1631}	2.13E-06	0.24074	1127.85	13
[496]	{1631,1647,5223}	=>	{5225}	1.96E-06	0.24000	1126.98	12
[497]	{1631,3881,5223}	=>	{5225}	5.56E-06	0.23944	1124.33	34
[498]	{1631,3881,4752}	=>	{5225}	1.80E-06	0.23913	1122.89	11
[499]	{2402,4035,4733,7151}	=>	{7481}	1.80E-06	0.61111	1120.98	11
[500]	{5220,5223,5552}	=>	{1631}	1.80E-06	0.23913	1120.31	11
[501]	{3881,4383,7139}	=>	{4755}	1.64E-06	0.20408	1118.03	10
[502]	{3903,5220,7122}	=>	{1631}	1.64E-06	0.23810	1115.46	10
[503]	{1630,1631,4415}	=>	{5220}	1.31E-06	0.88889	1113.86	8
[504]	{1304,1631,4752,5223}	=>	{5220}	1.31E-06	0.88889	1113.86	8
[505]	{3890,3895,4374,7199}	=>	{3892}	1.14E-06	0.35000	1112.19	7
[506]	{2716,3895,6672,7794}	=>	{3892}	1.14E-06	0.35000	1112.19	7
[507]	{2391,3148}	=>	{7111}	1.47E-06	0.90000	1112.06	9

[508]	{1304,1306,1651,3148}	=>	{7111}	1.47E-06	0.90000	1112.06	9
[509]	{3177,3895,6672,8210}	=>	{7111}	1.47E-06	0.90000	1112.06	9
[510]	{1304,5220,5552}	=>	{1631}	1.47E-06	0.23684	1109.59	9
[511]	{1647,4752,5220}	=>	{1631}	1.47E-06	0.23684	1109.59	9
[512]	{3177,3890,3895,8210}	=>	{3892}	1.31E-06	0.34783	1105.28	8
[513]	{1651,3153,5874,6356}	=>	{3154}	1.14E-06	0.41176	1103.67	7
[514]	{1630,1651,3153,3881}	=>	{3154}	1.14E-06	0.41176	1103.67	7
[515]	{2393,2715,2716,8212}	=>	{2711}	1.14E-06	0.22581	1103.55	7
[516]	{5225,5878}	=>	{1631}	1.31E-06	0.23529	1102.34	8
[517]	{5220,6356,7122}	=>	{1631}	1.31E-06	0.23529	1102.34	8
[518]	{1651,3881,4752,5220}	=>	{1631}	1.96E-06	0.23529	1102.34	12
[519]	{3881,4752,5220,7794}	=>	{1631}	1.31E-06	0.23529	1102.34	8
[520]	{2402,3883,4374,4388}	=>	{7481}	1.47E-06	0.60000	1100.60	9
[521]	{3883,4029,4374,4733}	=>	{7481}	1.96E-06	0.60000	1100.60	12
[522]	{2406,3890,3895,6672}	=>	{3892}	1.47E-06	0.34615	1099.96	9
[523]	{3148,3868,5554}	=>	{7111}	1.31E-06	0.88889	1098.33	8
[524]	{3148,3865,5554,7122}	=>	{7111}	1.31E-06	0.88889	1098.33	8
[525]	{3895,6672,7119,8210}	=>	{7111}	1.31E-06	0.88889	1098.33	8
[526]	{3147,3152}	=>	{3154}	1.47E-06	0.40909	1096.50	9
[527]	{4410,5220}	=>	{1631}	1.80E-06	0.23404	1096.47	11
[528]	{1645,5220,5223}	=>	{1631}	1.80E-06	0.23404	1096.47	11
[529]	{5220,5223,8699}	=>	{1631}	1.80E-06	0.23404	1096.47	11
[530]	{1631,4415,5223}	=>	{5220}	1.14E-06	0.87500	1096.46	7
[531]	{1304,1631,1645,4752}	=>	{5220}	1.14E-06	0.87500	1096.46	7
[532]	{1631,3881,4415,5223}	=>	{5220}	1.14E-06	0.87500	1096.46	7
[533]	{1631,3881,4735,5223}	=>	{5220}	1.14E-06	0.87500	1096.46	7
[534]	{4733,7136}	=>	{2079}	1.14E-06	0.38889	1096.18	7
[535]	{3881,3895,3903,8210}	=>	{3892}	1.64E-06	0.34483	1095.75	10
[536]	{2082,7139}	=>	{4755}	1.47E-06	0.20000	1095.67	9
[537]	{1631,4752,5223}	=>	{5225}	1.14E-06	0.23333	1095.67	7
[538]	{3152,3171,3186,4374}	=>	{4397}	1.31E-06	0.80000	1095.18	8
[539]	{3881,3903,5220}	=>	{1631}	2.94E-06	0.23377	1095.18	18
[540]	{1630,1651,4752,5220}	=>	{1631}	1.14E-06	0.23333	1093.15	7
[541]	{1631,5223,7122}	=>	{5225}	1.64E-06	0.23256	1092.03	10
[542]	{1304,5218,6678}	=>	{5225}	1.64E-06	0.23256	1092.03	10
[543]	{4755,6346}	=>	{6345}	2.62E-06	0.47059	1087.75	16
[544]	{3148,4733,6672}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[545]	{1304,1630,3148,3868}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[546]	{1304,1651,3148,5874}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[547]	{1630,3148,3868,5554}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[548]	{3148,3868,5554,7122}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[549]	{3148,3868,3881,5554}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[550]	{1304,3887,3890,6670}	=>	{7111}	1.14E-06	0.87500	1081.17	7

[551]	{3890,4750,6670,8210}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[552]	{3890,4733,6670,8210}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[553]	{1304,1630,7119,8699}	=>	{7111}	1.14E-06	0.87500	1081.17	7
[554]	{1651,3877,5220}	=>	{1631}	1.47E-06	0.23077	1081.14	9
[555]	{1647,1651,5220,5223}	=>	{1631}	1.47E-06	0.23077	1081.14	9
[556]	{1630,3881,5220,5223}	=>	{1631}	4.91E-06	0.23077	1081.14	30
[557]	{3521,3883,4035,7794}	=>	{7481}	1.64E-06	0.58824	1079.02	10
[558]	{3154,3165,5874}	=>	{7139}	1.14E-06	0.46667	1077.06	7
[559]	{3881,5220,5223,5874}	=>	{1631}	2.29E-06	0.22951	1075.23	14
[560]	{3866,3883,4029,4733}	=>	{7481}	1.14E-06	0.58333	1070.03	7
[561]	{2402,3883,4035,4374}	=>	{7481}	1.14E-06	0.58333	1070.03	7
[562]	{3536,4029,4047,5895}	=>	{7481}	1.14E-06	0.58333	1070.03	7
[563]	{3883,4029,4049,4733}	=>	{7481}	1.14E-06	0.58333	1070.03	7
[564]	{1645,3160,4374,4738}	=>	{4397}	1.14E-06	0.77778	1064.76	7
[565]	{3152,3167,3186,4374}	=>	{4397}	1.14E-06	0.77778	1064.76	7
[566]	{4037,6680,7138}	=>	{4043}	1.31E-06	0.88889	1063.72	8
[567]	{1631,5223}	=>	{5225}	8.18E-06	0.22624	1062.38	50
[568]	{4755,5220}	=>	{5225}	1.14E-06	0.22581	1060.33	7
[569]	{1631,3881,5223,7122}	=>	{5225}	1.14E-06	0.22581	1060.33	7
[570]	{1631,3881,5223,7794}	=>	{5225}	1.14E-06	0.22581	1060.33	7
[571]	{3895,3903,8210}	=>	{3892}	2.13E-06	0.33333	1059.22	13
[572]	{3890,7797,8210}	=>	{3892}	2.13E-06	0.33333	1059.22	13
[573]	{3890,3895,6689,7797}	=>	{3892}	1.47E-06	0.33333	1059.22	9
[574]	{2716,3890,3895,6691}	=>	{3892}	1.14E-06	0.33333	1059.22	7
[575]	{2716,3890,3895,4756}	=>	{3892}	1.31E-06	0.33333	1059.22	8
[576]	{2716,3865,3890,6689}	=>	{3892}	1.14E-06	0.33333	1059.22	7
[577]	{3521,3883,4035}	=>	{7481}	2.45E-06	0.57692	1058.27	15
[578]	{1304,1651,4752,5220}	=>	{1631}	1.14E-06	0.22581	1057.89	7
[579]	{1304,1645,1651,5220}	=>	{1631}	1.14E-06	0.22581	1057.89	7
[580]	{1630,1651,5232,5552}	=>	{1631}	1.14E-06	0.22581	1057.89	7
[581]	{1304,5220,6672}	=>	{1631}	1.47E-06	0.22500	1054.11	9
[582]	{1630,3881,5220,6680}	=>	{1631}	1.47E-06	0.22500	1054.11	9
[583]	{3163,3165,3881,5230}	=>	{4406}	1.14E-06	0.63636	1051.52	7
[584]	{1631,3881,6678}	=>	{5225}	2.78E-06	0.22368	1050.36	17
[585]	{3903,5225}	=>	{1631}	2.13E-06	0.22414	1050.07	13
[586]	{2404,2406,4029}	=>	{7481}	1.31E-06	0.57143	1048.19	8
[587]	{1622,2402,3504}	=>	{7481}	1.31E-06	0.57143	1048.19	8
[588]	{2402,3883,4035,4388}	=>	{7481}	1.31E-06	0.57143	1048.19	8
[589]	{3536,3883,4029,4037}	=>	{7481}	1.31E-06	0.57143	1048.19	8
[590]	{4412,7138}	=>	{4043}	1.14E-06	0.87500	1047.10	7
[591]	{1631,4752,4769}	=>	{5220}	1.64E-06	0.83333	1044.24	10
[592]	{1631,1651,4733}	=>	{5225}	1.31E-06	0.22222	1043.50	8
[593]	{1631,1647,3881,5223}	=>	{5225}	1.31E-06	0.22222	1043.50	8

[594]	{1630,1651,3153,6356}	=>	{3154}	1.14E-06	0.38889	1042.35	7
[595]	{1651,4752,5220}	=>	{1631}	2.94E-06	0.22222	1041.10	18
[596]	{1630,4766,5220}	=>	{1631}	1.64E-06	0.22222	1041.10	10
[597]	{2089,5220,5874}	=>	{1631}	1.31E-06	0.22222	1041.10	8
[598]	{3881,4735,5220,7794}	=>	{1631}	1.31E-06	0.22222	1041.10	8
[599]	{1651,4769,5220}	=>	{1631}	2.13E-06	0.22034	1032.27	13
[600]	{3883,4047,4374,4733}	=>	{7481}	1.47E-06	0.56250	1031.81	9
[601]	{3883,4047,4374,4388}	=>	{7481}	1.47E-06	0.56250	1031.81	9
[602]	{1651,5225,6678}	=>	{1631}	1.47E-06	0.21951	1028.40	9
[603]	{1651,4733,4755}	=>	{6345}	1.31E-06	0.44444	1027.32	8
[604]	{1306,1631,7794}	=>	{5220}	1.47E-06	0.81818	1025.26	9
[605]	{2716,3895,7797}	=>	{3892}	1.64E-06	0.32258	1025.06	10
[606]	{1304,1630,5220,7122}	=>	{1631}	1.14E-06	0.21875	1024.83	7
[607]	{2388,3881,5220,5223}	=>	{1631}	1.14E-06	0.21875	1024.83	7
[608]	{1630,1651,5220,5223}	=>	{1631}	1.96E-06	0.21818	1022.17	12
[609]	{3890,7199,8210}	=>	{3892}	1.47E-06	0.32143	1021.39	9
[610]	{2402,3536,3883,4035}	=>	{7481}	1.64E-06	0.55556	1019.08	10
[611]	{4401,5220}	=>	{1631}	1.64E-06	0.21739	1018.46	10
[612]	{1304,3148,5554,7122}	=>	{7111}	2.29E-06	0.82353	1017.57	14
[613]	{1645,3163,5230}	=>	{4406}	1.31E-06	0.61538	1016.86	8
[614]	{3890,3895,4374,8210}	=>	{3892}	1.31E-06	0.32000	1016.86	8
[615]	{1630,3877,3890,3895}	=>	{3892}	1.31E-06	0.32000	1016.86	8
[616]	{1630,3881,3903,5220}	=>	{1631}	1.31E-06	0.21622	1012.96	8
[617]	{2402,3883,4029,7151}	=>	{7481}	2.62E-06	0.55172	1012.05	16
[618]	{1630,3895,3903,8210}	=>	{3892}	1.14E-06	0.31818	1011.08	7
[619]	{1304,3177,3890,3895}	=>	{3892}	1.14E-06	0.31818	1011.08	7
[620]	{2716,3890,4393,6689}	=>	{3892}	1.14E-06	0.31818	1011.08	7
[621]	{3148,3865,5554}	=>	{7111}	1.47E-06	0.81818	1010.96	9
[622]	{3148,3881,4393}	=>	{7111}	1.47E-06	0.81818	1010.96	9
[623]	{1630,3148,6689}	=>	{7111}	1.47E-06	0.81818	1010.96	9
[624]	{1304,1630,3148,5554}	=>	{7111}	1.47E-06	0.81818	1010.96	9
[625]	{1304,4733,6670,8210}	=>	{7111}	1.47E-06	0.81818	1010.96	9
[626]	{3881,4752,5220}	=>	{1631}	3.76E-06	0.21495	1007.04	23
[627]	{3163,4374,5230}	=>	{4406}	2.29E-06	0.60870	1005.80	14
[628]	{1304,3148,3881,5554}	=>	{7111}	2.13E-06	0.81250	1003.94	13
[629]	{1630,3148,5554,7122}	=>	{7111}	2.13E-06	0.81250	1003.94	13
[630]	{5554,6670,7119,8210}	=>	{7111}	2.13E-06	0.81250	1003.94	13
[631]	{1630,1631,4745}	=>	{5220}	1.31E-06	0.80000	1002.47	8
[632]	{1630,1631,3881,4745}	=>	{5220}	1.31E-06	0.80000	1002.47	8
[633]	{1304,1630,1631,4752}	=>	{5220}	1.31E-06	0.80000	1002.47	8
[634]	{1631,3881,4752,7794}	=>	{5220}	1.31E-06	0.80000	1002.47	8
[635]	{3895,6672,6689,8210}	=>	{7111}	2.78E-06	0.80952	1000.26	17
[636]	{2716,3881,3890,6689}	=>	{3892}	1.80E-06	0.31429	998.70	11

[637]	{5223,5225,7122}	=>	{1631}	1.64E-06	0.21277	996.79	10
[638]	{1631,1651,4752}	=>	{5225}	1.14E-06	0.21212	996.06	7
[639]	{3875,4763,5874}	=>	{4397}	1.31E-06	0.72727	995.62	8
[640]	{1630,1631,5223}	=>	{5225}	2.94E-06	0.21176	994.39	18
[641]	{1630,4499,5220}	=>	{1631}	1.14E-06	0.21212	993.77	7
[642]	{1630,3530,3881,5220}	=>	{1631}	1.14E-06	0.21212	993.77	7
[643]	{1304,1651,5223,5232}	=>	{1631}	1.14E-06	0.21212	993.77	7
[644]	{3868,3890,3895,5552}	=>	{3892}	1.64E-06	0.31250	993.02	10
[645]	{3165,4415,5230}	=>	{4406}	1.47E-06	0.60000	991.43	9
[646]	{2406,3163,5230}	=>	{4406}	1.47E-06	0.60000	991.43	9
[647]	{3881,7122,7136}	=>	{2079}	2.13E-06	0.35135	990.37	13
[648]	{1630,3148,3865,5554}	=>	{7111}	1.31E-06	0.80000	988.49	8
[649]	{1630,3148,6689,7122}	=>	{7111}	1.31E-06	0.80000	988.49	8
[650]	{1630,3148,3881,6689}	=>	{7111}	1.31E-06	0.80000	988.49	8
[651]	{1304,6670,7119,8210}	=>	{7111}	1.31E-06	0.80000	988.49	8
[652]	{3895,6670,7119,8210}	=>	{7111}	1.96E-06	0.80000	988.49	12
[653]	{3890,6670,7119,8210}	=>	{7111}	1.31E-06	0.80000	988.49	8
[654]	{3890,5554,7119,8210}	=>	{7111}	1.96E-06	0.80000	988.49	12
[655]	{1308,2402,3883}	=>	{7481}	1.14E-06	0.53846	987.72	7
[656]	{2402,3883,4047,5895}	=>	{7481}	1.14E-06	0.53846	987.72	7
[657]	{2402,3171,3883,4031}	=>	{7481}	1.14E-06	0.53846	987.72	7
[658]	{2402,3883,4037,7794}	=>	{7481}	1.14E-06	0.53846	987.72	7
[659]	{3152,3171,3883,7151}	=>	{7481}	1.14E-06	0.53846	987.72	7
[660]	{1622,3883,4029,7791}	=>	{7481}	1.14E-06	0.53846	987.72	7
[661]	{3881,5225,6672}	=>	{1631}	1.31E-06	0.21053	986.30	8
[662]	{4752,5220,7122}	=>	{1631}	1.96E-06	0.21053	986.30	12
[663]	{1647,3881,5220,5232}	=>	{1631}	1.31E-06	0.21053	986.30	8
[664]	{1622,3881,5220,5223}	=>	{1631}	1.31E-06	0.21053	986.30	8
[665]	{3881,3890,7797,8210}	=>	{3892}	1.47E-06	0.31034	986.17	9
[666]	{2716,3890,3895,4374}	=>	{3892}	1.47E-06	0.31034	986.17	9
[667]	{1630,5220,5223}	=>	{1631}	6.22E-06	0.20994	983.58	38
[668]	{1631,7131}	=>	{5225}	1.47E-06	0.20930	982.83	9
[669]	{4752,5220}	=>	{1631}	7.03E-06	0.20976	982.69	43
[670]	{2089,2716,3881,3895}	=>	{3892}	2.78E-06	0.30909	982.19	17
[671]	{1630,1631,3881,5223}	=>	{5225}	2.29E-06	0.20896	981.20	14
[672]	{3881,5225,5552}	=>	{1631}	1.47E-06	0.20930	980.57	9
[673]	{2089,5220,7794}	=>	{1631}	1.47E-06	0.20930	980.57	9
[674]	{3881,5220,7122,7149}	=>	{1631}	1.47E-06	0.20930	980.57	9
[675]	{4037,7122,7138}	=>	{4043}	1.47E-06	0.81818	979.10	9
[676]	{1308,3883,4374}	=>	{7481}	1.31E-06	0.53333	978.31	8
[677]	{2402,3152,3883,4031}	=>	{7481}	1.31E-06	0.53333	978.31	8
[678]	{3152,3883,4031,7151}	=>	{7481}	1.31E-06	0.53333	978.31	8
[679]	{3171,4047,4374,7794}	=>	{7481}	1.31E-06	0.53333	978.31	8

[680]	{1651,2388,3895,3903}	=>	{3892}	1.31E-06	0.30769	977.74	8
[681]	{1306,1651,3890,6670}	=>	{3892}	1.31E-06	0.30769	977.74	8
[682]	{2716,3890,3895,7199}	=>	{3892}	1.31E-06	0.30769	977.74	8
[683]	{2716,3890,3895,4033}	=>	{3892}	1.31E-06	0.30769	977.74	8
[684]	{1651,3890,3895,7199}	=>	{3892}	1.31E-06	0.30769	977.74	8
[685]	{2406,2714,2715,2716}	=>	{2711}	1.47E-06	0.20000	977.43	9
[686]	{5220,5554,7149}	=>	{1631}	1.64E-06	0.20833	976.03	10
[687]	{1304,3148,5554}	=>	{7111}	2.45E-06	0.78947	975.49	15
[688]	{1651,3153,5874}	=>	{3154}	1.31E-06	0.36364	974.67	8
[689]	{1632,3881,6682}	=>	{5220}	1.14E-06	0.77778	974.63	7
[690]	{1631,4752,8210}	=>	{5220}	1.14E-06	0.77778	974.63	7
[691]	{1306,1631,4752}	=>	{5220}	1.14E-06	0.77778	974.63	7
[692]	{1631,3881,4764}	=>	{5220}	1.14E-06	0.77778	974.63	7
[693]	{1304,1631,5223,5232}	=>	{5220}	1.14E-06	0.77778	974.63	7
[694]	{1304,1630,1631,1645}	=>	{5220}	1.14E-06	0.77778	974.63	7
[695]	{1304,1630,1631,6672}	=>	{5220}	1.14E-06	0.77778	974.63	7
[696]	{1631,2388,3881,6672}	=>	{5220}	1.14E-06	0.77778	974.63	7
[697]	{4022,7138}	=>	{4043}	2.13E-06	0.81250	972.30	13
[698]	{2402,3883,4037}	=>	{7481}	1.47E-06	0.52941	971.12	9
[699]	{2716,3881,3895,6689}	=>	{3892}	1.80E-06	0.30556	970.95	11
[700]	{1651,3881,5220,5223}	=>	{1631}	3.93E-06	0.20690	969.30	24
[701]	{3881,5220,5223,7794}	=>	{1631}	2.94E-06	0.20690	969.30	18
[702]	{3890,3895,3903,7149}	=>	{3892}	1.14E-06	0.30435	967.12	7
[703]	{2089,3890,3903,6690}	=>	{3892}	1.14E-06	0.30435	967.12	7
[704]	{2089,3890,3895,4393}	=>	{3892}	2.29E-06	0.30435	967.12	14
[705]	{2398,3890,3895,6672}	=>	{3892}	1.14E-06	0.30435	967.12	7
[706]	{2716,3881,3895,7797}	=>	{3892}	1.14E-06	0.30435	967.12	7
[707]	{1630,3890,5874,7797}	=>	{3892}	1.14E-06	0.30435	967.12	7
[708]	{1651,2406,3890,4393}	=>	{3892}	1.14E-06	0.30435	967.12	7
[709]	{3865,5224}	=>	{5225}	1.14E-06	0.20588	966.77	7
[710]	{1639,5220}	=>	{1631}	1.14E-06	0.20588	964.55	7
[711]	{1622,1651,5225}	=>	{1631}	1.14E-06	0.20588	964.55	7
[712]	{3163,3887,5230}	=>	{4406}	1.14E-06	0.58333	963.89	7
[713]	{3171,3881,5230}	=>	{4406}	1.14E-06	0.58333	963.89	7
[714]	{3163,7129,7143}	=>	{4406}	1.14E-06	0.58333	963.89	7
[715]	{1304,1306,3881,5223}	=>	{5225}	1.31E-06	0.20513	963.23	8
[716]	{2082,4761,5554}	=>	{4760}	1.14E-06	0.35000	962.16	7
[717]	{1304,3148,3177}	=>	{7111}	1.14E-06	0.77778	961.04	7
[718]	{3148,5554,6689}	=>	{7111}	1.14E-06	0.77778	961.04	7
[719]	{1630,3148,5554}	=>	{7111}	2.29E-06	0.77778	961.04	14
[720]	{1630,3148,7146}	=>	{7111}	1.14E-06	0.77778	961.04	7
[721]	{1304,3148,3868,7122}	=>	{7111}	1.14E-06	0.77778	961.04	7
[722]	{1304,3148,3177,7122}	=>	{7111}	1.14E-06	0.77778	961.04	7

[723]	{3148,3881,4393,7122}	=>	{7111}	1.14E-06	0.77778	961.04	7
[724]	{1304,6670,7148,8210}	=>	{7111}	1.14E-06	0.77778	961.04	7
[725]	{2388,2406,6670,8210}	=>	{7111}	1.14E-06	0.77778	961.04	7
[726]	{1630,3171,7119,8210}	=>	{7111}	1.14E-06	0.77778	961.04	7
[727]	{2398,3890,6670,6672}	=>	{7111}	1.14E-06	0.77778	961.04	7
[728]	{1304,3895,6689,7119}	=>	{7111}	1.14E-06	0.77778	961.04	7
[729]	{1306,3177,3895,6672}	=>	{7111}	1.14E-06	0.77778	961.04	7
[730]	{1630,3890,4750,8699}	=>	{7111}	1.14E-06	0.77778	961.04	7
[731]	{3881,4799,5225}	=>	{1631}	1.31E-06	0.20513	961.01	8
[732]	{1630,4037,5220}	=>	{1631}	1.31E-06	0.20513	961.01	8
[733]	{5225,7131}	=>	{1631}	1.47E-06	0.20455	958.28	9
[734]	{2404,4374,4733}	=>	{4397}	1.14E-06	0.70000	958.28	7
[735]	{3875,4374,4763}	=>	{4397}	1.14E-06	0.70000	958.28	7
[736]	{2404,3152,4374,4733}	=>	{4397}	1.14E-06	0.70000	958.28	7
[737]	{1304,3152,4750,6670}	=>	{4397}	1.14E-06	0.70000	958.28	7
[738]	{3152,4374,4750,6670}	=>	{4397}	1.14E-06	0.70000	958.28	7
[739]	{3152,4750,5874,6670}	=>	{4397}	1.14E-06	0.70000	958.28	7
[740]	{3171,3881,3906,7148}	=>	{3904}	1.14E-06	0.58333	958.20	7
[741]	{4020,7138}	=>	{4043}	2.62E-06	0.80000	957.34	16
[742]	{4035,6680,7138}	=>	{4043}	1.31E-06	0.80000	957.34	8
[743]	{4037,7138,7794}	=>	{4043}	1.31E-06	0.80000	957.34	8
[744]	{1651,3153,3881,6356}	=>	{3154}	1.64E-06	0.35714	957.26	10
[745]	{3163,3881,5230,7131}	=>	{4406}	1.80E-06	0.57895	956.65	11
[746]	{3890,3895,3903,6690}	=>	{3892}	1.47E-06	0.30000	953.30	9
[747]	{1630,2089,3895,8210}	=>	{3892}	1.47E-06	0.30000	953.30	9
[748]	{1647,2089,2716,3895}	=>	{3892}	1.47E-06	0.30000	953.30	9
[749]	{2716,3890,6689,7122}	=>	{3892}	1.47E-06	0.30000	953.30	9
[750]	{4755,5225}	=>	{1631}	1.96E-06	0.20339	952.87	12
[751]	{1304,3148,7794}	=>	{7111}	1.64E-06	0.76923	950.48	10
[752]	{3895,6689,7119,8210}	=>	{7111}	1.64E-06	0.76923	950.48	10
[753]	{1647,3895,7119,8210}	=>	{7111}	1.64E-06	0.76923	950.48	10
[754]	{3152,4374,4763,5874}	=>	{4397}	1.47E-06	0.69231	947.75	9
[755]	{1304,1630,5220}	=>	{1631}	3.11E-06	0.20213	946.95	19
[756]	{3895,5554,7119,8210}	=>	{7111}	2.13E-06	0.76471	944.88	13
[757]	{3165,5230,7149}	=>	{4406}	1.31E-06	0.57143	944.22	8
[758]	{3163,5230,7149}	=>	{4406}	1.31E-06	0.57143	944.22	8
[759]	{3163,4799,6689,7129}	=>	{4406}	1.31E-06	0.57143	944.22	8
[760]	{2089,3881,3890,8210}	=>	{3892}	1.31E-06	0.29630	941.53	8
[761]	{3177,3890,3895,6690}	=>	{3892}	1.31E-06	0.29630	941.53	8
[762]	{2089,3890,3895,4374}	=>	{3892}	1.31E-06	0.29630	941.53	8
[763]	{1632,3865,3881}	=>	{5220}	1.47E-06	0.75000	939.82	9
[764]	{1630,1631,1647,7149}	=>	{5220}	1.47E-06	0.75000	939.82	9
[765]	{1631,4037}	=>	{5225}	1.31E-06	0.20000	939.15	8

[766]	{3148,5554,7122}	=>	{7111}	3.11E-06	0.76000	939.07	19
[767]	{3895,6670,6672,8210}	=>	{7111}	3.11E-06	0.76000	939.07	19
[768]	{3153,3881,3903}	=>	{3154}	1.14E-06	0.35000	938.12	7
[769]	{4733,5223,5225}	=>	{1631}	1.14E-06	0.20000	936.99	7
[770]	{1630,5220,5886}	=>	{1631}	1.14E-06	0.20000	936.99	7
[771]	{1630,3903,5220}	=>	{1631}	1.64E-06	0.20000	936.99	10
[772]	{1304,1647,5220}	=>	{1631}	1.31E-06	0.20000	936.99	8
[773]	{5220,5874,6690}	=>	{1631}	1.31E-06	0.20000	936.99	8
[774]	{5220,5874,8699}	=>	{1631}	1.14E-06	0.20000	936.99	7
[775]	{3881,5223,5225,7122}	=>	{1631}	1.14E-06	0.20000	936.99	7
[776]	{1304,1647,3881,5220}	=>	{1631}	1.14E-06	0.20000	936.99	7
[777]	{1630,3881,5220,6691}	=>	{1631}	1.31E-06	0.20000	936.99	8
[778]	{3881,5220,6691,7122}	=>	{1631}	1.14E-06	0.20000	936.99	7
[779]	{1630,4756,5220,7122}	=>	{1631}	1.14E-06	0.20000	936.99	7
[780]	{1306,1630,3881,5220}	=>	{1631}	1.31E-06	0.20000	936.99	8
[781]	{1630,3881,5220,8699}	=>	{1631}	1.31E-06	0.20000	936.99	8
[782]	{3890,3895,3903,6689}	=>	{3892}	1.64E-06	0.29412	934.61	10
[783]	{3890,3895,4374,7794}	=>	{3892}	1.64E-06	0.29412	934.61	10
[784]	{2388,2716,3890,3895}	=>	{3892}	1.64E-06	0.29412	934.61	10
[785]	{2089,7138,7794}	=>	{4043}	1.14E-06	0.77778	930.75	7
[786]	{1651,4037,7138}	=>	{4043}	1.14E-06	0.77778	930.75	7
[787]	{4053,6678,7138}	=>	{4043}	1.14E-06	0.77778	930.75	7
[788]	{4752,4776,6672}	=>	{4771}	1.80E-06	0.61111	930.11	11
[789]	{1651,3165,5230}	=>	{4406}	1.47E-06	0.56250	929.47	9
[790]	{3890,3895,6689,7145}	=>	{3892}	1.14E-06	0.29167	926.82	7
[791]	{3881,3890,6689,7145}	=>	{3892}	1.14E-06	0.29167	926.82	7
[792]	{1648,2716,3890,3895}	=>	{3892}	1.14E-06	0.29167	926.82	7
[793]	{1304,3148,3868}	=>	{7111}	1.47E-06	0.75000	926.71	9
[794]	{1304,1651,3148,5554}	=>	{7111}	1.47E-06	0.75000	926.71	9
[795]	{3148,3881,5554,7122}	=>	{7111}	2.45E-06	0.75000	926.71	15
[796]	{1304,6689,7119,8210}	=>	{7111}	1.47E-06	0.75000	926.71	9
[797]	{1630,3895,8210,8699}	=>	{7111}	1.47E-06	0.75000	926.71	9
[798]	{1630,3890,4750,8210}	=>	{7111}	1.47E-06	0.75000	926.71	9
[799]	{1304,1631,1651,5223}	=>	{5220}	2.29E-06	0.73684	923.33	14
[800]	{2089,2716,3890,7122}	=>	{3892}	1.47E-06	0.29032	922.55	9
[801]	{1622,1630,1638,1651}	=>	{1636}	1.14E-06	0.63636	921.08	7
[802]	{2089,3881,3895,8210}	=>	{3892}	1.80E-06	0.28947	919.85	11
[803]	{1304,1631,3881,4752}	=>	{5220}	1.80E-06	0.73333	918.93	11
[804]	{2089,2716,3881,3890}	=>	{3892}	2.13E-06	0.28889	917.99	13
[805]	{1647,4755,7139}	=>	{4740}	1.31E-06	0.26667	917.48	8
[806]	{1308,3883,4033}	=>	{7481}	1.14E-06	0.50000	917.17	7
[807]	{2402,3171,4397,7794}	=>	{7481}	1.31E-06	0.50000	917.17	8
[808]	{2402,4374,4397,4733}	=>	{7481}	1.14E-06	0.50000	917.17	7

[809]	{2402,4374,4397,7794}	=>	{7481}	1.47E-06	0.50000	917.17	9
[810]	{3536,3866,3883,7794}	=>	{7481}	1.47E-06	0.50000	917.17	9
[811]	{2402,3152,3171,3883}	=>	{7481}	1.64E-06	0.50000	917.17	10
[812]	{2402,3171,3883,7151}	=>	{7481}	1.47E-06	0.50000	917.17	9
[813]	{2402,3536,3883,4374}	=>	{7481}	1.14E-06	0.50000	917.17	7
[814]	{2402,3883,4374,7791}	=>	{7481}	1.14E-06	0.50000	917.17	7
[815]	{2402,3536,3883,4733}	=>	{7481}	1.31E-06	0.50000	917.17	8
[816]	{2402,3883,4035,4733}	=>	{7481}	1.31E-06	0.50000	917.17	8
[817]	{2402,3167,4388,7791}	=>	{7481}	1.14E-06	0.50000	917.17	7
[818]	{2402,3536,4035,4733}	=>	{7481}	1.47E-06	0.50000	917.17	9
[819]	{3171,3883,4029,4374}	=>	{7481}	1.14E-06	0.50000	917.17	7
[820]	{3883,4374,4388,4733}	=>	{7481}	1.80E-06	0.50000	917.17	11
[821]	{3536,3883,4029,6672}	=>	{7481}	1.14E-06	0.50000	917.17	7
[822]	{3536,3883,4029,4035}	=>	{7481}	2.62E-06	0.50000	917.17	16
[823]	{1651,3883,4029,4733}	=>	{7481}	1.14E-06	0.50000	917.17	7
[824]	{3883,4029,4388,6672}	=>	{7481}	1.31E-06	0.50000	917.17	8
[825]	{3148,5554}	=>	{7111}	3.27E-06	0.74074	915.27	20
[826]	{1631,4735,5223}	=>	{5220}	1.31E-06	0.72727	911.34	8
[827]	{1631,3881,4735,7794}	=>	{5220}	1.31E-06	0.72727	911.34	8
[828]	{4397,4763,5874}	=>	{3875}	1.31E-06	0.25000	908.72	8
[829]	{3869,3890,3895,4374}	=>	{3892}	1.31E-06	0.28571	907.91	8
[830]	{2089,3890,3895,6690}	=>	{3892}	1.64E-06	0.28571	907.91	10
[831]	{1636,3156,3536}	=>	{1634}	1.14E-06	0.87500	907.48	7
[832]	{1304,1306,3148,3881}	=>	{7111}	1.80E-06	0.73333	906.12	11
[833]	{1630,3148,3881,5554}	=>	{7111}	1.80E-06	0.73333	906.12	11
[834]	{3890,3895,7119,8210}	=>	{7111}	1.80E-06	0.73333	906.12	11
[835]	{1630,7136}	=>	{2079}	1.31E-06	0.32000	902.00	8
[836]	{7122,7136}	=>	{2079}	3.93E-06	0.32000	902.00	24
[837]	{3530,4755}	=>	{6345}	1.14E-06	0.38889	898.91	7
[838]	{1651,2068,4755}	=>	{6345}	1.14E-06	0.38889	898.91	7
[839]	{1651,3148,3165}	=>	{7111}	1.31E-06	0.72727	898.63	8
[840]	{3148,3881,5554}	=>	{7111}	2.62E-06	0.72727	898.63	16
[841]	{1630,3148,7122,8210}	=>	{7111}	1.31E-06	0.72727	898.63	8
[842]	{1304,3148,3868,3881}	=>	{7111}	1.31E-06	0.72727	898.63	8
[843]	{1304,2388,3148,7122}	=>	{7111}	1.31E-06	0.72727	898.63	8
[844]	{1304,3148,7122,7794}	=>	{7111}	1.31E-06	0.72727	898.63	8
[845]	{1651,3148,3165,7122}	=>	{7111}	1.31E-06	0.72727	898.63	8
[846]	{3890,3895,6689,8210}	=>	{3892}	2.13E-06	0.28261	898.04	13
[847]	{3177,4755,7122}	=>	{7139}	1.14E-06	0.38889	897.55	7
[848]	{3163,3881,5230}	=>	{4406}	3.11E-06	0.54286	897.01	19
[849]	{3881,3895,7797,8210}	=>	{3892}	1.80E-06	0.28205	896.27	11
[850]	{2089,2716,3895}	=>	{3892}	3.27E-06	0.28169	895.12	20
[851]	{1632,3865}	=>	{5220}	1.64E-06	0.71429	895.07	10

[852]	{1631,3903,7794}	=>	{5220}	1.64E-06	0.71429	895.07	10
[853]	{1631,3881,5223,6672}	=>	{5220}	1.64E-06	0.71429	895.07	10
[854]	{1630,3895,7797,8210}	=>	{3892}	1.47E-06	0.28125	893.72	9
[855]	{2402,3883,4374}	=>	{7481}	3.11E-06	0.48718	893.65	19
[856]	{3152,3881,4374,4401}	=>	{3154}	1.14E-06	0.33333	893.44	7
[857]	{1651,3895,4393,8210}	=>	{3892}	1.14E-06	0.28000	889.75	7
[858]	{1630,3890,7797,8210}	=>	{3892}	1.14E-06	0.28000	889.75	7
[859]	{1651,3890,3895,5880}	=>	{3892}	1.14E-06	0.28000	889.75	7
[860]	{2716,3895,5874,7122}	=>	{3892}	1.14E-06	0.28000	889.75	7
[861]	{4799,5230,6689}	=>	{4406}	1.14E-06	0.53846	889.75	7
[862]	{3536,3883,4029,4047}	=>	{7481}	2.45E-06	0.48387	887.58	15
[863]	{1304,3152,4374,4763}	=>	{4397}	1.80E-06	0.64706	885.81	11
[864]	{1622,2402,3536}	=>	{7481}	2.29E-06	0.48276	885.54	14
[865]	{1304,1630,1631,5223}	=>	{5220}	1.96E-06	0.70588	884.54	12
[866]	{3171,3906,7122,7148}	=>	{3904}	1.14E-06	0.53846	884.49	7
[867]	{1306,3890,8210}	=>	{3892}	1.64E-06	0.27778	882.69	10
[868]	{3148,4393}	=>	{7111}	1.64E-06	0.71429	882.58	10
[869]	{1304,1630,3148,3865}	=>	{7111}	1.64E-06	0.71429	882.58	10
[870]	{1304,1630,3148,7122}	=>	{7111}	2.45E-06	0.71429	882.58	15
[871]	{1306,1651,3148,3881}	=>	{7111}	1.64E-06	0.71429	882.58	10
[872]	{3160,3890,6670,7119}	=>	{7111}	1.64E-06	0.71429	882.58	10
[873]	{1304,3869,3890,3895}	=>	{7111}	1.64E-06	0.71429	882.58	10
[874]	{3163,4799,5230}	=>	{4406}	1.31E-06	0.53333	881.27	8
[875]	{3152,3171,4374,4763}	=>	{4397}	1.47E-06	0.64286	880.05	9
[876]	{3883,4029,4047,4374}	=>	{7481}	1.80E-06	0.47826	877.29	11
[877]	{1304,1631,4752}	=>	{5220}	2.29E-06	0.70000	877.16	14
[878]	{1304,1630,1631,5552}	=>	{5220}	1.14E-06	0.70000	877.16	7
[879]	{1304,1631,1651,4752}	=>	{5220}	1.14E-06	0.70000	877.16	7
[880]	{1631,1651,4752,5223}	=>	{5220}	1.14E-06	0.70000	877.16	7
[881]	{1304,1631,1645,1651}	=>	{5220}	1.14E-06	0.70000	877.16	7
[882]	{1630,3895,7119,8210}	=>	{7111}	3.60E-06	0.70968	876.89	22
[883]	{2716,3177,3890,3895}	=>	{3892}	1.31E-06	0.27586	876.60	8
[884]	{1651,3153,3881}	=>	{3154}	2.78E-06	0.32692	876.26	17
[885]	{1647,7136}	=>	{2079}	1.47E-06	0.31034	874.78	9
[886]	{2402,3883,4035,7791}	=>	{7481}	1.64E-06	0.47619	873.49	10
[887]	{3152,3171,3883,4029}	=>	{7481}	1.64E-06	0.47619	873.49	10
[888]	{1304,1306,3148,7122}	=>	{7111}	1.96E-06	0.70588	872.20	12
[889]	{1304,1651,3148,3881}	=>	{7111}	1.96E-06	0.70588	872.20	12
[890]	{1304,2714,4374,4799}	=>	{4397}	1.14E-06	0.63636	871.17	7
[891]	{2390,4053,4374,7149}	=>	{4397}	1.14E-06	0.63636	871.17	7
[892]	{1304,3152,4374,4738}	=>	{4397}	1.14E-06	0.63636	871.17	7
[893]	{1630,3152,4750,4799}	=>	{4397}	1.14E-06	0.63636	871.17	7
[894]	{3881,3890,3895,7145}	=>	{3892}	3.27E-06	0.27397	870.59	20

[895]	{1651,6680,7138}	=>	{4043}	1.31E-06	0.72727	870.31	8
[896]	{4053,7138,7794}	=>	{4043}	1.31E-06	0.72727	870.31	8
[897]	{1308,3883,7151}	=>	{7481}	1.47E-06	0.47368	868.90	9
[898]	{2402,4047,4733,7151}	=>	{7481}	1.47E-06	0.47368	868.90	9
[899]	{1622,3883,4029,4031}	=>	{7481}	1.47E-06	0.47368	868.90	9
[900]	{1631,4499,5223}	=>	{5220}	1.47E-06	0.69231	867.53	9
[901]	{1622,1631,4733}	=>	{5220}	1.47E-06	0.69231	867.53	9
[902]	{2716,3890,7797}	=>	{3892}	1.47E-06	0.27273	866.64	9
[903]	{3881,3890,4393,8210}	=>	{3892}	1.47E-06	0.27273	866.64	9
[904]	{3890,6689,7122,8210}	=>	{3892}	1.47E-06	0.27273	866.64	9
[905]	{1630,3890,3895,7114}	=>	{3892}	1.47E-06	0.27273	866.64	9
[906]	{3148,3872,3881}	=>	{7111}	1.14E-06	0.70000	864.93	7
[907]	{3148,4393,7122}	=>	{7111}	1.14E-06	0.70000	864.93	7
[908]	{1630,3148,3881,8210}	=>	{7111}	1.14E-06	0.70000	864.93	7
[909]	{1630,3148,6670,7122}	=>	{7111}	1.14E-06	0.70000	864.93	7
[910]	{1304,3148,3165,7122}	=>	{7111}	1.14E-06	0.70000	864.93	7
[911]	{1304,2388,3148,3881}	=>	{7111}	1.14E-06	0.70000	864.93	7
[912]	{1304,3148,7122,7149}	=>	{7111}	1.14E-06	0.70000	864.93	7
[913]	{1630,3887,3890,6670}	=>	{7111}	1.14E-06	0.70000	864.93	7
[914]	{1306,1630,3150,6670}	=>	{7111}	1.14E-06	0.70000	864.93	7
[915]	{1304,3890,3895,4738}	=>	{7111}	1.14E-06	0.70000	864.93	7
[916]	{3868,6670,7119,8210}	=>	{7111}	1.14E-06	0.70000	864.93	7
[917]	{1304,3895,7119,8210}	=>	{7111}	1.14E-06	0.70000	864.93	7
[918]	{1651,3890,7119,8210}	=>	{7111}	1.14E-06	0.70000	864.93	7
[919]	{3890,6689,8210,8699}	=>	{7111}	1.14E-06	0.70000	864.93	7
[920]	{3890,6672,8210,8699}	=>	{7111}	1.14E-06	0.70000	864.93	7
[921]	{1306,6689,7119,8210}	=>	{7111}	1.14E-06	0.70000	864.93	7
[922]	{6672,6689,7119,8210}	=>	{7111}	2.29E-06	0.70000	864.93	14
[923]	{1647,6689,7119,8210}	=>	{7111}	1.14E-06	0.70000	864.93	7
[924]	{1645,3890,6670,6672}	=>	{7111}	1.14E-06	0.70000	864.93	7
[925]	{1306,3524,3895,6672}	=>	{7111}	1.14E-06	0.70000	864.93	7
[926]	{1622,2402,4733}	=>	{7481}	1.31E-06	0.47059	863.22	8
[927]	{1308,3883,4388,4733}	=>	{7481}	1.31E-06	0.47059	863.22	8
[928]	{2402,3167,3171,3883}	=>	{7481}	1.31E-06	0.47059	863.22	8
[929]	{2402,3883,4047,7151}	=>	{7481}	1.31E-06	0.47059	863.22	8
[930]	{2402,3883,4031,7151}	=>	{7481}	1.31E-06	0.47059	863.22	8
[931]	{2402,3152,3536,4099}	=>	{7481}	1.31E-06	0.47059	863.22	8
[932]	{1632,1651}	=>	{5220}	1.80E-06	0.68750	861.50	11
[933]	{1631,5223,7149}	=>	{5220}	1.80E-06	0.68750	861.50	11
[934]	{1630,3895,6689,7119}	=>	{7111}	3.76E-06	0.69697	861.19	23
[935]	{3865,3890,3895,5552}	=>	{3892}	2.13E-06	0.27083	860.62	13
[936]	{3883,4047,4374,7794}	=>	{7481}	2.45E-06	0.46875	859.84	15
[937]	{1304,3895,6672,8210}	=>	{7111}	2.62E-06	0.69565	859.56	16

[938]	{3890,3895,6672,8210}	=>	{3892}	1.64E-06	0.27027	858.83	10
[939]	{3869,3890,3895,6672}	=>	{3892}	1.64E-06	0.27027	858.83	10
[940]	{1630,3881,4753,4785}	=>	{4761}	1.31E-06	0.30769	858.59	8
[941]	{3153,3881,5874}	=>	{3154}	1.31E-06	0.32000	857.71	8
[942]	{2402,2404,3536}	=>	{7481}	1.14E-06	0.46667	856.02	7
[943]	{1622,2404,7794}	=>	{7481}	1.14E-06	0.46667	856.02	7
[944]	{3171,3521,4033}	=>	{7481}	1.14E-06	0.46667	856.02	7
[945]	{2402,2404,3167,4031}	=>	{7481}	1.14E-06	0.46667	856.02	7
[946]	{2402,2404,3152,4031}	=>	{7481}	1.14E-06	0.46667	856.02	7
[947]	{1308,3883,4029,4388}	=>	{7481}	1.14E-06	0.46667	856.02	7
[948]	{2402,3883,4374,7794}	=>	{7481}	2.29E-06	0.46667	856.02	14
[949]	{3883,4374,5895,7794}	=>	{7481}	1.14E-06	0.46667	856.02	7
[950]	{3171,3883,4029,4388}	=>	{7481}	1.14E-06	0.46667	856.02	7
[951]	{3883,4029,4049,7151}	=>	{7481}	1.14E-06	0.46667	856.02	7
[952]	{1622,3536,3883,4029}	=>	{7481}	1.14E-06	0.46667	856.02	7
[953]	{3883,4029,4053,4388}	=>	{7481}	1.14E-06	0.46667	856.02	7
[954]	{1304,3152,3167,6670}	=>	{4397}	1.64E-06	0.62500	855.61	10
[955]	{3890,3903,6672,6689}	=>	{3892}	1.14E-06	0.26923	855.53	7
[956]	{3890,4374,6689,8210}	=>	{3892}	1.14E-06	0.26923	855.53	7
[957]	{2716,3184,3881,3895}	=>	{3892}	1.14E-06	0.26923	855.53	7
[958]	{3890,3895,6672,7149}	=>	{3892}	2.29E-06	0.26923	855.53	14
[959]	{3148,3881,7146}	=>	{7111}	1.47E-06	0.69231	855.43	9
[960]	{1304,3890,4738,5554}	=>	{7111}	1.47E-06	0.69231	855.43	9
[961]	{1306,3895,6689,8210}	=>	{7111}	1.47E-06	0.69231	855.43	9
[962]	{3895,6672,6690,8210}	=>	{7111}	1.47E-06	0.69231	855.43	9
[963]	{3152,3153,3160}	=>	{3154}	1.14E-06	0.31818	852.83	7
[964]	{3152,3160,3881,4401}	=>	{3154}	1.14E-06	0.31818	852.83	7
[965]	{3890,3895,7114,7122}	=>	{3892}	1.80E-06	0.26829	852.55	11
[966]	{1651,2714,4738,5554}	=>	{5218}	1.14E-06	0.87500	850.49	7
[967]	{1651,3148,5554}	=>	{7111}	1.80E-06	0.68750	849.49	11
[968]	{1304,3148,3865,7122}	=>	{7111}	1.80E-06	0.68750	849.49	11
[969]	{3868,5554,7119,8210}	=>	{7111}	1.80E-06	0.68750	849.49	11
[970]	{5554,6689,7119,8210}	=>	{7111}	1.80E-06	0.68750	849.49	11
[971]	{1647,3895,6670,7119}	=>	{7111}	1.80E-06	0.68750	849.49	11
[972]	{3890,3895,6689,7119}	=>	{7111}	1.80E-06	0.68750	849.49	11
[973]	{3177,3881,4755}	=>	{6345}	1.80E-06	0.36667	847.54	11
[974]	{1647,3890,3895,5552}	=>	{3892}	1.31E-06	0.26667	847.38	8
[975]	{1630,2388,3895,3903}	=>	{3892}	1.31E-06	0.26667	847.38	8
[976]	{2388,3890,3895,6689}	=>	{3892}	1.96E-06	0.26667	847.38	12
[977]	{3881,4037,7138}	=>	{4043}	1.96E-06	0.70588	844.72	12
[978]	{1630,3890,3895,5552}	=>	{3892}	2.13E-06	0.26531	843.06	13
[979]	{2089,3890,3895,6672}	=>	{3892}	2.13E-06	0.26531	843.06	13
[980]	{6670,6689,7119,8210}	=>	{7111}	2.45E-06	0.68182	842.47	15

[981]	{3165,3881,3890,3895}	=>	{3892}	1.47E-06	0.26471	841.15	9
[982]	{2716,3890,4374,7122}	=>	{3892}	1.47E-06	0.26471	841.15	9
[983]	{4037,7138}	=>	{4043}	4.25E-06	0.70270	840.91	26
[984]	{2402,3536,3883,4388}	=>	{7481}	1.80E-06	0.45833	840.74	11
[985]	{4755,5874,7794}	=>	{7139}	1.31E-06	0.36364	839.27	8
[986]	{1647,3881,6678,7138}	=>	{4043}	1.14E-06	0.70000	837.68	7
[987]	{3881,4755,6672}	=>	{4740}	1.47E-06	0.24324	836.89	9
[988]	{1304,3152,4374,4750}	=>	{4397}	1.80E-06	0.61111	836.60	11
[989]	{3865,3890,6672,8210}	=>	{3892}	1.64E-06	0.26316	836.23	10
[990]	{1631,2390}	=>	{5220}	1.31E-06	0.66667	835.40	8
[991]	{1632,3881,7122}	=>	{5220}	1.31E-06	0.66667	835.40	8
[992]	{1632,3881,7794}	=>	{5220}	1.64E-06	0.66667	835.40	10
[993]	{1631,1645,4752}	=>	{5220}	1.64E-06	0.66667	835.40	10
[994]	{1622,1631,4752}	=>	{5220}	1.31E-06	0.66667	835.40	8
[995]	{1631,4752,7122}	=>	{5220}	1.96E-06	0.66667	835.40	12
[996]	{1631,2089,3903}	=>	{5220}	1.31E-06	0.66667	835.40	8
[997]	{1304,1631,3881,6672}	=>	{5220}	1.31E-06	0.66667	835.40	8
[998]	{1630,1631,5223,6672}	=>	{5220}	1.31E-06	0.66667	835.40	8
[999]	{1630,1631,1651,6672}	=>	{5220}	1.31E-06	0.66667	835.40	8
[1000]	{1630,1631,6690,7122}	=>	{5220}	1.31E-06	0.66667	835.40	8
[1001]	{1630,6670,7119,8210}	=>	{7111}	4.09E-06	0.67568	834.88	25
[1002]	{2402,3883,4029,4033}	=>	{7481}	1.64E-06	0.45455	833.79	10
[1003]	{3152,3883,4029,4031}	=>	{7481}	1.64E-06	0.45455	833.79	10
[1004]	{3165,3890,3895}	=>	{3892}	1.80E-06	0.26190	832.25	11
[1005]	{1630,6670,6689,7119}	=>	{7111}	5.40E-06	0.67347	832.15	33
[1006]	{3881,4393,7138}	=>	{4043}	1.47E-06	0.69231	828.47	9
[1007]	{1651,3865,4752,4753}	=>	{4761}	1.31E-06	0.29630	826.79	8
[1008]	{5230,7143}	=>	{4406}	1.47E-06	0.50000	826.19	9
[1009]	{3165,3881,5230}	=>	{4406}	2.29E-06	0.50000	826.19	14
[1010]	{1645,4374,5230}	=>	{4406}	1.31E-06	0.50000	826.19	8
[1011]	{1645,5230,7131}	=>	{4406}	1.31E-06	0.50000	826.19	8
[1012]	{2089,3163,5230,7131}	=>	{4406}	1.47E-06	0.50000	826.19	9
[1013]	{2391,3163,7122,7131}	=>	{4406}	1.14E-06	0.50000	826.19	7
[1014]	{4755,7139,7794}	=>	{4740}	1.96E-06	0.24000	825.73	12
[1015]	{2402,4397,4733,7794}	=>	{7481}	1.47E-06	0.45000	825.45	9
[1016]	{1630,1651,3153}	=>	{3154}	1.31E-06	0.30769	824.72	8
[1017]	{3890,4374,7145}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1018]	{1651,3865,3895,7145}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1019]	{2388,3881,3890,8210}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1020]	{1304,3890,3895,7149}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1021]	{3881,3890,3895,4020}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1022]	{1645,2716,3890,3895}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1023]	{2388,3890,3895,7199}	=>	{3892}	1.14E-06	0.25926	823.84	7

[1024]	{2388,3890,3895,4799}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1025]	{1647,2089,3895,6672}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1026]	{1630,3890,6689,7797}	=>	{3892}	1.14E-06	0.25926	823.84	7
[1027]	{1630,3148,8210}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1028]	{1304,3148,3865}	=>	{7111}	1.96E-06	0.66667	823.75	12
[1029]	{1304,1651,3148,7122}	=>	{7111}	2.29E-06	0.66667	823.75	14
[1030]	{1304,3148,5874,7122}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1031]	{1651,3148,5554,7122}	=>	{7111}	1.64E-06	0.66667	823.75	10
[1032]	{1651,3148,3881,5554}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1033]	{1304,1630,3887,3890}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1034]	{1304,6670,8210,8699}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1035]	{3895,4733,6670,8210}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1036]	{3890,6670,6672,8210}	=>	{7111}	2.94E-06	0.66667	823.75	18
[1037]	{3868,6670,6672,8210}	=>	{7111}	2.29E-06	0.66667	823.75	14
[1038]	{5554,6670,8210,8699}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1039]	{2388,6670,7119,8210}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1040]	{1304,3890,8210,8699}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1041]	{1304,5554,7119,8210}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1042]	{3881,3895,4750,8210}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1043]	{3881,3890,4750,8210}	=>	{7111}	1.64E-06	0.66667	823.75	10
[1044]	{3890,6672,6689,8210}	=>	{7111}	3.27E-06	0.66667	823.75	20
[1045]	{4733,5554,7119,8210}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1046]	{1306,3177,6689,8210}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1047]	{1306,3865,6689,8210}	=>	{7111}	1.64E-06	0.66667	823.75	10
[1048]	{3895,4374,6670,7119}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1049]	{3890,4750,6670,6672}	=>	{7111}	1.31E-06	0.66667	823.75	8
[1050]	{3160,3868,6670,7119}	=>	{7111}	1.64E-06	0.66667	823.75	10
[1051]	{1308,3883,4733}	=>	{7481}	2.13E-06	0.44828	822.29	13
[1052]	{3152,3186,4374,5874}	=>	{4397}	1.47E-06	0.60000	821.38	9
[1053]	{3171,3906,7148}	=>	{3904}	1.47E-06	0.50000	821.31	9
[1054]	{2398,3866,3868,5874}	=>	{3871}	1.14E-06	0.77778	821.28	7
[1055]	{2716,3895,8210}	=>	{3892}	1.31E-06	0.25806	820.04	8
[1056]	{1304,2388,3890,3895}	=>	{3892}	1.31E-06	0.25806	820.04	8
[1057]	{3878,3890,3895,7122}	=>	{3892}	1.31E-06	0.25806	820.04	8
[1058]	{2388,3177,3890,3895}	=>	{3892}	1.31E-06	0.25806	820.04	8
[1059]	{3890,7145,8210}	=>	{3892}	1.47E-06	0.25714	817.12	9
[1060]	{3890,3903,8210}	=>	{3892}	1.47E-06	0.25714	817.12	9
[1061]	{1648,3890,3895,6689}	=>	{3892}	1.47E-06	0.25714	817.12	9
[1062]	{1651,3153,3160}	=>	{3154}	1.14E-06	0.30435	815.75	7
[1063]	{1653,3186,3506}	=>	{3154}	1.14E-06	0.30435	815.75	7
[1064]	{1308,3883,4733,7794}	=>	{7481}	1.31E-06	0.44444	815.26	8
[1065]	{1308,3883,4029,4035}	=>	{7481}	1.31E-06	0.44444	815.26	8
[1066]	{1622,3521,4031,7794}	=>	{7481}	1.31E-06	0.44444	815.26	8

[1067]	{1622,1634,1635}	=>	{1636}	1.47E-06	0.56250	814.17	9
[1068]	{1651,3890,7145}	=>	{3892}	1.80E-06	0.25581	812.89	11
[1069]	{3890,4393,8210}	=>	{3892}	1.80E-06	0.25581	812.89	11
[1070]	{2089,3895,8210}	=>	{3892}	1.96E-06	0.25532	811.32	12
[1071]	{1631,3881,4415}	=>	{5220}	1.80E-06	0.64706	810.82	11
[1072]	{3890,3895,3903}	=>	{3892}	6.22E-06	0.25503	810.41	38
[1073]	{1630,3865,4733,5225}	=>	{5218}	1.64E-06	0.83333	809.99	10
[1074]	{3868,3890,3895,8210}	=>	{3892}	2.13E-06	0.25490	809.99	13
[1075]	{3890,3895,5554,7119}	=>	{7111}	3.11E-06	0.65517	809.54	19
[1076]	{1304,1630,3148}	=>	{7111}	2.78E-06	0.65385	807.90	17
[1077]	{1630,6672,7119,8210}	=>	{7111}	2.78E-06	0.65385	807.90	17
[1078]	{3883,4029,4051}	=>	{7481}	1.80E-06	0.44000	807.11	11
[1079]	{2402,3883,4029,4374}	=>	{7481}	1.80E-06	0.44000	807.11	11
[1080]	{4415,5230}	=>	{4406}	3.43E-06	0.48837	806.98	21
[1081]	{1622,1636,3156,7794}	=>	{1634}	1.14E-06	0.77778	806.65	7
[1082]	{1306,3148,3881}	=>	{7111}	2.45E-06	0.65217	805.84	15
[1083]	{1304,1630,3148,3881}	=>	{7111}	2.45E-06	0.65217	805.84	15
[1084]	{1304,1631,6672}	=>	{5220}	1.47E-06	0.64286	805.56	9
[1085]	{1631,1647,1651,5223}	=>	{5220}	1.47E-06	0.64286	805.56	9
[1086]	{1630,1631,5223,7794}	=>	{5220}	1.47E-06	0.64286	805.56	9
[1087]	{1630,1631,3881,4735}	=>	{5220}	1.47E-06	0.64286	805.56	9
[1088]	{1651,2388,4755}	=>	{6345}	1.31E-06	0.34783	803.99	8
[1089]	{1306,1651,3148}	=>	{7111}	2.13E-06	0.65000	803.15	13
[1090]	{1306,1630,6670,7119}	=>	{7111}	2.13E-06	0.65000	803.15	13
[1091]	{2392,3883,4035}	=>	{7481}	1.14E-06	0.43750	802.52	7
[1092]	{3152,3504,3883}	=>	{7481}	1.14E-06	0.43750	802.52	7
[1093]	{2402,2404,3152,7151}	=>	{7481}	1.14E-06	0.43750	802.52	7
[1094]	{3152,3883,4374,7794}	=>	{7481}	1.14E-06	0.43750	802.52	7
[1095]	{3152,3883,7792,7794}	=>	{7481}	1.14E-06	0.43750	802.52	7
[1096]	{1304,4776,6672}	=>	{4771}	1.64E-06	0.52632	801.05	10
[1097]	{1630,3890,8210,8699}	=>	{7111}	1.80E-06	0.64706	799.52	11
[1098]	{3171,3875,6670}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1099]	{3154,4374,6689}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1100]	{1651,3152,3875,5874}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1101]	{1304,3152,3171,4763}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1102]	{1304,3171,3887,4799}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1103]	{3171,3887,4374,4799}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1104]	{1645,3160,4374,4752}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1105]	{1651,3167,4374,4415}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1106]	{1304,3150,3160,4374}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1107]	{1645,4374,4738,6675}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1108]	{1304,3152,3171,7151}	=>	{4397}	1.14E-06	0.58333	798.57	7
[1109]	{1632,5874,7794}	=>	{5220}	1.14E-06	0.63636	797.42	7

[1110]	{1631,4755,5223}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1111]	{1631,2388,6672}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1112]	{1631,5874,8699}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1113]	{1631,1647,7149}	=>	{5220}	2.29E-06	0.63636	797.42	14
[1114]	{1630,1631,5223,5552}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1115]	{1630,1631,3530,3881}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1116]	{1631,1647,3881,5878}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1117]	{1630,1631,1651,7149}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1118]	{1630,1631,3865,7794}	=>	{5220}	1.14E-06	0.63636	797.42	7
[1119]	{2089,3163,5230}	=>	{4406}	2.13E-06	0.48148	795.59	13
[1120]	{3890,3903,6689}	=>	{3892}	3.43E-06	0.25000	794.42	21
[1121]	{2388,3890,8210}	=>	{3892}	1.64E-06	0.25000	794.42	10
[1122]	{2716,3895,6672}	=>	{3892}	3.60E-06	0.25000	794.42	22
[1123]	{1651,3865,3890,7145}	=>	{3892}	1.14E-06	0.25000	794.42	7
[1124]	{1647,1651,3895,3903}	=>	{3892}	1.14E-06	0.25000	794.42	7
[1125]	{1304,3890,3895,8210}	=>	{3892}	1.47E-06	0.25000	794.42	9
[1126]	{1651,3890,3895,8210}	=>	{3892}	2.29E-06	0.25000	794.42	14
[1127]	{3865,3890,4393,8210}	=>	{3892}	1.14E-06	0.25000	794.42	7
[1128]	{3517,3890,3895,7797}	=>	{3892}	1.64E-06	0.25000	794.42	10
[1129]	{1630,3890,4374,7797}	=>	{3892}	1.14E-06	0.25000	794.42	7
[1130]	{3881,3890,6689,7797}	=>	{3892}	1.47E-06	0.25000	794.42	9
[1131]	{1304,2388,3148}	=>	{7111}	1.47E-06	0.64286	794.33	9
[1132]	{1304,3148,7149}	=>	{7111}	1.47E-06	0.64286	794.33	9
[1133]	{3865,3895,8210,8699}	=>	{7111}	1.47E-06	0.64286	794.33	9
[1134]	{3177,6672,6689,7119}	=>	{7111}	1.47E-06	0.64286	794.33	9
[1135]	{1651,3152,4374,4763}	=>	{4397}	1.80E-06	0.57895	792.56	11
[1136]	{1304,3148,3881,7122}	=>	{7111}	4.09E-06	0.64103	792.06	25
[1137]	{1631,3881,4763}	=>	{5220}	1.96E-06	0.63158	791.43	12
[1138]	{1630,1631,1647,5223}	=>	{5220}	1.96E-06	0.63158	791.43	12
[1139]	{1631,1647,3881,7149}	=>	{5220}	1.96E-06	0.63158	791.43	12
[1140]	{1304,1651,3148}	=>	{7111}	2.62E-06	0.64000	790.80	16
[1141]	{1304,3148,4752}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1142]	{3148,6670,7122}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1143]	{1651,2388,3148}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1144]	{1630,1648,3148}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1145]	{1304,3890,8211}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1146]	{1630,3148,3881,6670}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1147]	{1304,3148,3881,6672}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1148]	{1306,3148,3881,7122}	=>	{7111}	2.29E-06	0.63636	786.30	14
[1149]	{1630,1648,3148,7122}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1150]	{3148,3881,7122,7146}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1151]	{1630,6670,6672,6687}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1152]	{2069,3524,3881,6670}	=>	{7111}	1.14E-06	0.63636	786.30	7

[1153]	{3881,3887,3895,6670}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1154]	{1304,3887,3890,6672}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1155]	{1648,3895,4398,5554}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1156]	{1630,3150,6670,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1157]	{5874,6670,7145,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1158]	{2406,6670,7122,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1159]	{1647,6670,7149,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1160]	{1304,3890,4750,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1161]	{3868,3895,7119,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1162]	{3868,3895,6672,8210}	=>	{7111}	2.29E-06	0.63636	786.30	14
[1163]	{3895,4393,6672,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1164]	{1630,3536,3895,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1165]	{3171,3881,7119,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1166]	{3890,5554,8210,8699}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1167]	{1647,3868,7119,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1168]	{3868,7119,7122,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1169]	{1647,6672,7119,8210}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1170]	{1304,3895,6670,7119}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1171]	{1304,3890,6670,8699}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1172]	{1304,1306,6670,7119}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1173]	{1306,3524,3895,6670}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1174]	{1306,3895,6670,7119}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1175]	{1306,1630,1646,6670}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1176]	{1306,6670,6672,7119}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1177]	{1630,6670,7119,8699}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1178]	{1304,3895,6672,7119}	=>	{7111}	1.14E-06	0.63636	786.30	7
[1179]	{1630,1631,3177,3881}	=>	{5220}	1.64E-06	0.62500	783.18	10
[1180]	{3163,3165,5230}	=>	{4406}	2.94E-06	0.47368	782.71	18
[1181]	{3163,5230,7122}	=>	{4406}	1.47E-06	0.47368	782.71	9
[1182]	{3152,3153,6356}	=>	{3154}	1.14E-06	0.29167	781.76	7
[1183]	{3152,4374,4401}	=>	{3154}	1.14E-06	0.29167	781.76	7
[1184]	{3152,3881,4393,4401}	=>	{3154}	1.14E-06	0.29167	781.76	7
[1185]	{1630,3890,6672,8210}	=>	{7111}	5.07E-06	0.63265	781.72	31
[1186]	{1622,2402,4029}	=>	{7481}	3.76E-06	0.42593	781.29	23
[1187]	{1304,3148,5874}	=>	{7111}	1.96E-06	0.63158	780.39	12
[1188]	{1306,1651,3148,7122}	=>	{7111}	1.96E-06	0.63158	780.39	12
[1189]	{3890,3895,6670,7119}	=>	{7111}	1.96E-06	0.63158	780.39	12
[1190]	{3890,3895,6672,6678}	=>	{3892}	2.13E-06	0.24528	779.43	13
[1191]	{2402,3883,4035}	=>	{7481}	4.58E-06	0.42424	778.20	28
[1192]	{3890,5554,6670,7119}	=>	{7111}	2.78E-06	0.62963	777.98	17
[1193]	{1651,2714,5223,5874}	=>	{5218}	1.31E-06	0.80000	777.59	8
[1194]	{1630,1651,2069,4752}	=>	{5218}	1.31E-06	0.80000	777.59	8
[1195]	{3165,5230,6690}	=>	{4406}	1.31E-06	0.47059	777.59	8

[1196]	{4799,5230,7131}	=>	{4406}	1.31E-06	0.47059	777.59	8
[1197]	{2089,3890,8210}	=>	{3892}	1.80E-06	0.24444	776.76	11
[1198]	{2716,3177,3895,7122}	=>	{3892}	1.64E-06	0.24390	775.04	10
[1199]	{3881,4374,7138}	=>	{4043}	1.80E-06	0.64706	774.32	11
[1200]	{3881,3890,3895,3903}	=>	{3892}	4.58E-06	0.24348	773.69	28
[1201]	{3177,3881,3895,3903}	=>	{3892}	1.47E-06	0.24324	772.95	9
[1202]	{2089,3890,3903,7122}	=>	{3892}	1.47E-06	0.24324	772.95	9
[1203]	{1304,3890,6689,8210}	=>	{3892}	1.47E-06	0.24324	772.95	9
[1204]	{3536,3866,4029}	=>	{7481}	1.31E-06	0.42105	772.35	8
[1205]	{1653,2402,3152}	=>	{7481}	1.31E-06	0.42105	772.35	8
[1206]	{2402,3883,4029,4035}	=>	{7481}	2.62E-06	0.42105	772.35	16
[1207]	{2402,3152,3171,5874}	=>	{7481}	1.31E-06	0.42105	772.35	8
[1208]	{3152,3171,3883,7794}	=>	{7481}	2.62E-06	0.42105	772.35	16
[1209]	{3883,4031,4374,4733}	=>	{7481}	1.31E-06	0.42105	772.35	8
[1210]	{1304,3148,7146}	=>	{7111}	1.64E-06	0.62500	772.26	10
[1211]	{3148,7122,7146}	=>	{7111}	1.64E-06	0.62500	772.26	10
[1212]	{1304,3148,3865,3881}	=>	{7111}	1.64E-06	0.62500	772.26	10
[1213]	{3881,3895,7119,8210}	=>	{7111}	3.27E-06	0.62500	772.26	20
[1214]	{3881,3890,7119,8210}	=>	{7111}	2.45E-06	0.62500	772.26	15
[1215]	{1651,6672,7119,8210}	=>	{7111}	1.64E-06	0.62500	772.26	10
[1216]	{1306,1630,6689,7119}	=>	{7111}	1.64E-06	0.62500	772.26	10
[1217]	{1631,5874,6690}	=>	{5220}	1.31E-06	0.61538	771.13	8
[1218]	{1306,1631,1651,3881}	=>	{5220}	1.31E-06	0.61538	771.13	8
[1219]	{1622,1630,1631,1651}	=>	{5220}	1.31E-06	0.61538	771.13	8
[1220]	{1631,1651,3881,8699}	=>	{5220}	1.31E-06	0.61538	771.13	8
[1221]	{3165,4758,5230}	=>	{4406}	1.14E-06	0.46667	771.11	7
[1222]	{1651,3152,4397,5874}	=>	{3875}	1.14E-06	0.21212	771.03	7
[1223]	{4755,8210}	=>	{6345}	1.96E-06	0.33333	770.49	12
[1224]	{3890,4393,7145}	=>	{3892}	1.31E-06	0.24242	770.34	8
[1225]	{2716,3890,4033,7122}	=>	{3892}	1.31E-06	0.24242	770.34	8
[1226]	{3152,4374,4733,7151}	=>	{4397}	1.47E-06	0.56250	770.05	9
[1227]	{1646,4755}	=>	{7139}	1.14E-06	0.33333	769.33	7
[1228]	{3153,3165,7122}	=>	{7139}	1.14E-06	0.33333	769.33	7
[1229]	{3154,3165,7122}	=>	{7139}	1.47E-06	0.33333	769.33	9
[1230]	{3881,4401,7138}	=>	{4043}	1.47E-06	0.64286	769.29	9
[1231]	{4053,6680,7138}	=>	{4043}	1.47E-06	0.64286	769.29	9
[1232]	{3890,3895,4020}	=>	{3892}	1.14E-06	0.24138	767.02	7
[1233]	{2716,3890,6689}	=>	{3892}	2.29E-06	0.24138	767.02	14
[1234]	{3869,3890,4374,7122}	=>	{3892}	1.14E-06	0.24138	767.02	7
[1235]	{1630,3890,3895,4766}	=>	{3892}	1.14E-06	0.24138	767.02	7
[1236]	{1306,3890,3895,4393}	=>	{3892}	1.14E-06	0.24138	767.02	7
[1237]	{3890,3895,4799,6689}	=>	{3892}	1.14E-06	0.24138	767.02	7
[1238]	{1630,3177,3895,7797}	=>	{3892}	1.14E-06	0.24138	767.02	7

[1239]	{2716,3881,3895,4756}	=>	{3892}	1.14E-06	0.24138	767.02	7
[1240]	{1651,3153,7122}	=>	{3154}	1.31E-06	0.28571	765.81	8
[1241]	{1632,1647,3881}	=>	{5220}	1.80E-06	0.61111	765.78	11
[1242]	{1631,5223,5552}	=>	{5220}	1.80E-06	0.61111	765.78	11
[1243]	{1631,4752,7794}	=>	{5220}	1.80E-06	0.61111	765.78	11
[1244]	{1306,1631,1651}	=>	{5220}	1.80E-06	0.61111	765.78	11
[1245]	{1630,1631,5223,5874}	=>	{5220}	1.80E-06	0.61111	765.78	11
[1246]	{1630,3148,3865,7122}	=>	{7111}	2.13E-06	0.61905	764.91	13
[1247]	{3890,6672,7122,8210}	=>	{7111}	2.13E-06	0.61905	764.91	13
[1248]	{1630,3868,7119,8210}	=>	{7111}	2.13E-06	0.61905	764.91	13
[1249]	{2402,3883,4031,4388}	=>	{7481}	1.64E-06	0.41667	764.31	10
[1250]	{3152,3883,7151,7794}	=>	{7481}	1.64E-06	0.41667	764.31	10
[1251]	{3536,3883,4374,4388}	=>	{7481}	1.64E-06	0.41667	764.31	10
[1252]	{3536,3883,4029,4374}	=>	{7481}	1.64E-06	0.41667	764.31	10
[1253]	{5554,6670,6672,8210}	=>	{7111}	3.43E-06	0.61765	763.18	21
[1254]	{1304,1630,6670,7119}	=>	{7111}	3.43E-06	0.61765	763.18	21
[1255]	{3163,3165,5230,7131}	=>	{4406}	1.96E-06	0.46154	762.64	12
[1256]	{3890,3895,7145}	=>	{3892}	3.93E-06	0.24000	762.64	24
[1257]	{2716,3895,6689}	=>	{3892}	1.96E-06	0.24000	762.64	12
[1258]	{1647,3890,3895,3903}	=>	{3892}	1.96E-06	0.24000	762.64	12
[1259]	{3878,7138}	=>	{4043}	1.14E-06	0.63636	761.52	7
[1260]	{5878,7138}	=>	{4043}	1.14E-06	0.63636	761.52	7
[1261]	{1645,6680,7138}	=>	{4043}	1.14E-06	0.63636	761.52	7
[1262]	{1622,1651,7138}	=>	{4043}	1.14E-06	0.63636	761.52	7
[1263]	{1630,3148,6670}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1264]	{3148,3881,7151}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1265]	{1304,3148,3881,4374}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1266]	{1304,3148,6672,7122}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1267]	{1630,3148,3868,3881}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1268]	{3148,3881,7122,7151}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1269]	{3148,3881,7122,7149}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1270]	{1630,3887,6670,6672}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1271]	{3524,3895,6670,8210}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1272]	{3171,3895,6670,8210}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1273]	{1304,6672,7119,8210}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1274]	{1306,3895,6672,8210}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1275]	{3865,3890,7119,8210}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1276]	{1648,3890,6672,8210}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1277]	{3881,3890,4750,8699}	=>	{7111}	1.31E-06	0.61538	760.38	8
[1278]	{1304,3148,3881}	=>	{7111}	4.42E-06	0.61364	758.22	27
[1279]	{2402,3536,3883,4029}	=>	{7481}	3.11E-06	0.41304	757.66	19
[1280]	{2402,3883,4035,7794}	=>	{7481}	3.11E-06	0.41304	757.66	19
[1281]	{1630,6670,6672,8210}	=>	{7111}	6.22E-06	0.61290	757.31	38

[1282]	{2716,3184,3895}	=>	{3892}	1.64E-06	0.23810	756.59	10
[1283]	{3152,3883,7792}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1284]	{1308,3883,7791,7794}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1285]	{3171,4047,5895,7794}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1286]	{3152,3167,3171,3883}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1287]	{3167,3171,3883,7151}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1288]	{1651,3883,4029,4047}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1289]	{3171,3883,4374,7794}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1290]	{3171,3883,4031,7151}	=>	{7481}	1.14E-06	0.41176	755.31	7
[1291]	{1304,3148,6672}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1292]	{3148,7122,7149}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1293]	{3150,3881,6670,8210}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1294]	{1651,6670,7119,8210}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1295]	{6670,6672,7119,8210}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1296]	{3517,3895,6689,8210}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1297]	{1651,6689,7119,8210}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1298]	{3868,3890,6670,7119}	=>	{7111}	1.80E-06	0.61111	755.10	11
[1299]	{1651,3153,6356}	=>	{3154}	2.94E-06	0.28125	753.84	18
[1300]	{3152,3881,4401}	=>	{3154}	2.94E-06	0.28125	753.84	18
[1301]	{2716,3890,3895,7122}	=>	{3892}	5.23E-06	0.23704	753.23	32
[1302]	{1304,3167,4374,4750}	=>	{4397}	1.80E-06	0.55000	752.94	11
[1303]	{3152,4374,4750,5874}	=>	{4397}	1.80E-06	0.55000	752.94	11
[1304]	{3890,3895,7122,7145}	=>	{3892}	1.47E-06	0.23684	752.61	9
[1305]	{1630,3148,3865}	=>	{7111}	2.29E-06	0.60870	752.12	14
[1306]	{1631,3881,4745}	=>	{5220}	1.47E-06	0.60000	751.86	9
[1307]	{1631,4752,6672}	=>	{5220}	1.47E-06	0.60000	751.86	9
[1308]	{1631,3881,4766}	=>	{5220}	2.45E-06	0.60000	751.86	15
[1309]	{1630,1631,4752,5223}	=>	{5220}	1.47E-06	0.60000	751.86	9
[1310]	{1630,1631,5223,5232}	=>	{5220}	1.96E-06	0.60000	751.86	12
[1311]	{1631,3881,5223,6678}	=>	{5220}	1.96E-06	0.60000	751.86	12
[1312]	{1631,3881,7122,7149}	=>	{5220}	1.47E-06	0.60000	751.86	9
[1313]	{2068,3881,6346}	=>	{6345}	2.13E-06	0.32500	751.23	13
[1314]	{1651,3177,3890,3895}	=>	{3892}	2.13E-06	0.23636	751.09	13
[1315]	{2068,4733,6345}	=>	{6346}	1.14E-06	0.46667	750.82	7
[1316]	{1651,3147}	=>	{3154}	1.14E-06	0.28000	750.49	7
[1317]	{3152,3153,3881}	=>	{3154}	1.14E-06	0.28000	750.49	7
[1318]	{2402,2404,4029}	=>	{7481}	1.47E-06	0.40909	750.41	9
[1319]	{2402,3171,3883,7794}	=>	{7481}	2.94E-06	0.40909	750.41	18
[1320]	{3167,3883,4029,4733}	=>	{7481}	1.47E-06	0.40909	750.41	9
[1321]	{3171,3883,4029,7151}	=>	{7481}	1.47E-06	0.40909	750.41	9
[1322]	{3883,4029,4035,6672}	=>	{7481}	1.47E-06	0.40909	750.41	9
[1323]	{1630,6689,7119,8210}	=>	{7111}	3.27E-06	0.60606	748.86	20
[1324]	{3895,7119,8210}	=>	{7111}	3.76E-06	0.60526	747.87	23

[1325]	{1651,6670,6672,8210}	=>	{7111}	3.76E-06	0.60526	747.87	23
[1326]	{2068,6670,6672}	=>	{2076}	1.47E-06	0.42857	747.78	9
[1327]	{2716,3184,3881,3890}	=>	{3892}	1.31E-06	0.23529	747.69	8
[1328]	{3890,3895,4033,4393}	=>	{3892}	1.31E-06	0.23529	747.69	8
[1329]	{1645,2716,3895,7122}	=>	{3892}	1.31E-06	0.23529	747.69	8
[1330]	{1630,3517,3890,7797}	=>	{3892}	1.31E-06	0.23529	747.69	8
[1331]	{2402,3883,6672}	=>	{7481}	1.80E-06	0.40741	747.32	11
[1332]	{2402,3171,3883,4029}	=>	{7481}	1.80E-06	0.40741	747.32	11
[1333]	{1304,3148,7122}	=>	{7111}	5.23E-06	0.60377	746.03	32
[1334]	{3881,3890,3895,7114}	=>	{3892}	2.45E-06	0.23438	744.77	15
[1335]	{2716,3881,3895,6672}	=>	{3892}	2.45E-06	0.23438	744.77	15
[1336]	{4388,7138}	=>	{7139}	1.64E-06	0.32258	744.51	10
[1337]	{3890,3895,6689,7149}	=>	{3892}	1.80E-06	0.23404	743.71	11
[1338]	{2402,3883,4029,4388}	=>	{7481}	2.45E-06	0.40541	743.65	15
[1339]	{3881,3890,3895,5552}	=>	{3892}	2.94E-06	0.23377	742.83	18
[1340]	{1644,4755}	=>	{7139}	1.47E-06	0.32143	741.85	9
[1341]	{3883,4374,4733,7794}	=>	{7481}	3.11E-06	0.40426	741.54	19
[1342]	{3865,3890,5552,5874}	=>	{3892}	1.14E-06	0.23333	741.46	7
[1343]	{3868,3890,3895,7145}	=>	{3892}	1.14E-06	0.23333	741.46	7
[1344]	{3890,3895,3903,6670}	=>	{3892}	1.14E-06	0.23333	741.46	7
[1345]	{3890,6672,6689,8210}	=>	{3892}	1.14E-06	0.23333	741.46	7
[1346]	{1630,3890,3895,6668}	=>	{3892}	1.14E-06	0.23333	741.46	7
[1347]	{3890,4393,6672,7149}	=>	{3892}	1.14E-06	0.23333	741.46	7
[1348]	{1630,3148,3868}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1349]	{3148,3868,3881,7122}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1350]	{1304,1306,3872,7122}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1351]	{3160,3890,6670,8210}	=>	{7111}	1.96E-06	0.60000	741.37	12
[1352]	{3881,6670,7119,8210}	=>	{7111}	3.93E-06	0.60000	741.37	24
[1353]	{3177,6670,6672,8210}	=>	{7111}	1.96E-06	0.60000	741.37	12
[1354]	{6670,6672,7148,8210}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1355]	{1304,1647,3895,8210}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1356]	{3890,3895,8210,8699}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1357]	{5554,6672,7119,8210}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1358]	{1647,5554,7119,8210}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1359]	{1304,3895,6670,6672}	=>	{7111}	3.43E-06	0.60000	741.37	21
[1360]	{1630,3895,6670,7119}	=>	{7111}	4.42E-06	0.60000	741.37	27
[1361]	{3890,4733,6670,7119}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1362]	{1304,3890,7122,8699}	=>	{7111}	1.47E-06	0.60000	741.37	9
[1363]	{1304,1630,6689,7119}	=>	{7111}	2.45E-06	0.60000	741.37	15
[1364]	{1631,1651,4769}	=>	{5220}	2.13E-06	0.59091	740.46	13
[1365]	{1630,3895,6672,8210}	=>	{7111}	6.05E-06	0.59677	737.39	37
[1366]	{3152,3875,5874}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1367]	{3171,3875,4374,5874}	=>	{4397}	1.14E-06	0.53846	737.14	7

[1368]	{3171,4374,4733,7481}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1369]	{2390,3160,3168,4374}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1370]	{3152,3171,4763,5874}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1371]	{3868,4374,4752,4799}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1372]	{3160,3186,4374,4738}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1373]	{1630,2406,4374,4738}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1374]	{3167,4374,4750,6670}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1375]	{3167,3171,3186,4374}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1376]	{3152,4374,4733,4799}	=>	{4397}	1.14E-06	0.53846	737.14	7
[1377]	{1304,1631,1645}	=>	{5220}	1.64E-06	0.58824	737.11	10
[1378]	{1631,1647,4735}	=>	{5220}	1.64E-06	0.58824	737.11	10
[1379]	{3881,3890,6689,8210}	=>	{3892}	2.62E-06	0.23188	736.85	16
[1380]	{3526,7800}	=>	{3501}	1.14E-06	0.25926	736.56	7
[1381]	{4374,7138}	=>	{4043}	2.62E-06	0.61538	736.42	16
[1382]	{1651,4752,6346}	=>	{6345}	1.14E-06	0.31818	735.47	7
[1383]	{4753,4776,7791}	=>	{4771}	2.29E-06	0.48276	734.75	14
[1384]	{2068,2069,5218}	=>	{2076}	1.31E-06	0.42105	734.66	8
[1385]	{1630,1631,4769}	=>	{5220}	2.78E-06	0.58621	734.57	17
[1386]	{3163,5230,6690}	=>	{4406}	2.62E-06	0.44444	734.40	16
[1387]	{1630,4374,5230}	=>	{4406}	1.31E-06	0.44444	734.40	8
[1388]	{3881,4374,5230}	=>	{4406}	1.96E-06	0.44444	734.40	12
[1389]	{3165,3881,5230,7131}	=>	{4406}	1.31E-06	0.44444	734.40	8
[1390]	{3883,4047,4374}	=>	{7481}	2.94E-06	0.40000	733.73	18
[1391]	{1622,3152,3883}	=>	{7481}	1.31E-06	0.40000	733.73	8
[1392]	{2402,3152,3883,4029}	=>	{7481}	1.31E-06	0.40000	733.73	8
[1393]	{2402,3883,7151,7794}	=>	{7481}	2.94E-06	0.40000	733.73	18
[1394]	{2402,3883,4031,4035}	=>	{7481}	1.64E-06	0.40000	733.73	10
[1395]	{1622,2402,4029,4031}	=>	{7481}	1.64E-06	0.40000	733.73	10
[1396]	{3883,4031,4035,4374}	=>	{7481}	1.64E-06	0.40000	733.73	10
[1397]	{3536,3883,4035,7791}	=>	{7481}	1.64E-06	0.40000	733.73	10
[1398]	{3895,7797,8210}	=>	{3892}	1.96E-06	0.23077	733.31	12
[1399]	{3890,3895,6670,7149}	=>	{3892}	1.96E-06	0.23077	733.31	12
[1400]	{1306,1651,3890,3895}	=>	{3892}	1.47E-06	0.23077	733.31	9
[1401]	{3895,6672,7122,8210}	=>	{7111}	2.62E-06	0.59259	732.22	16
[1402]	{1304,1631,7794}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1403]	{1631,3515,6678}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1404]	{1631,6690,7794}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1405]	{1630,1631,1651,4752}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1406]	{1304,1630,1631,7122}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1407]	{1631,2388,3881,5223}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1408]	{1630,1631,6672,7122}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1409]	{1622,1630,1631,7794}	=>	{5220}	1.14E-06	0.58333	730.97	7
[1410]	{3517,3895,6670,8210}	=>	{7111}	2.13E-06	0.59091	730.14	13

[1411]	{1630,3890,7119,8210}	=>	{7111}	2.13E-06	0.59091	730.14	13
[1412]	{3895,5554,6670,7119}	=>	{7111}	2.13E-06	0.59091	730.14	13
[1413]	{1304,2406,4374,4738}	=>	{4397}	1.31E-06	0.53333	730.12	8
[1414]	{1304,3152,3186,4374}	=>	{4397}	1.31E-06	0.53333	730.12	8
[1415]	{3881,4053,7138}	=>	{4043}	2.29E-06	0.60870	728.41	14
[1416]	{2716,3895,6672,7122}	=>	{3892}	1.80E-06	0.22917	728.22	11
[1417]	{1631,3881,5223,7794}	=>	{5220}	2.94E-06	0.58065	727.60	18
[1418]	{1645,3881,5230}	=>	{4406}	1.80E-06	0.44000	727.05	11
[1419]	{3148,3868,7122}	=>	{7111}	1.64E-06	0.58824	726.83	10
[1420]	{3148,3881,6689}	=>	{7111}	1.64E-06	0.58824	726.83	10
[1421]	{1630,1651,3148}	=>	{7111}	1.64E-06	0.58824	726.83	10
[1422]	{1304,3524,6672,6689}	=>	{7111}	1.64E-06	0.58824	726.83	10
[1423]	{3881,6678,7138}	=>	{4043}	2.78E-06	0.60714	726.56	17
[1424]	{1306,1651,3895,6670}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1425]	{2716,3868,3890,3895}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1426]	{3177,3890,3895,6689}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1427]	{3890,3895,5884,6689}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1428]	{1630,3895,5874,7797}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1429]	{1630,3177,3895,4374}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1430]	{2716,3865,3895,6672}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1431]	{2089,3895,6672,7122}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1432]	{1645,2716,3890,7122}	=>	{3892}	1.31E-06	0.22857	726.32	8
[1433]	{1636,3881,8699}	=>	{1635}	2.45E-06	0.21739	725.49	15
[1434]	{1651,3875,4374,5874}	=>	{4397}	1.47E-06	0.52941	724.75	9
[1435]	{1651,6670,6689,7119}	=>	{7111}	2.78E-06	0.58621	724.33	17
[1436]	{3881,3890,3895,8210}	=>	{3892}	5.07E-06	0.22794	724.32	31
[1437]	{1304,3865,5219,5554}	=>	{4761}	1.14E-06	0.25926	723.45	7
[1438]	{1304,1631,3881,5223}	=>	{5220}	2.45E-06	0.57692	722.94	15
[1439]	{1630,1631,3881,6672}	=>	{5220}	2.45E-06	0.57692	722.94	15
[1440]	{3163,4758,5230}	=>	{4406}	1.14E-06	0.43750	722.92	7
[1441]	{1630,2089,5230}	=>	{4406}	1.14E-06	0.43750	722.92	7
[1442]	{3163,3165,3865,7131}	=>	{4406}	1.14E-06	0.43750	722.92	7
[1443]	{2716,3895,4756}	=>	{3892}	1.64E-06	0.22727	722.20	10
[1444]	{2402,3883,7151}	=>	{7481}	3.93E-06	0.39344	721.71	24
[1445]	{3152,3160,4374,7199}	=>	{3154}	1.14E-06	0.26923	721.63	7
[1446]	{1631,5223,6678}	=>	{5220}	3.11E-06	0.57576	721.48	19
[1447]	{1304,3148,3881,5874}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1448]	{3148,3881,4733,7122}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1449]	{1630,3890,5554,6687}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1450]	{3881,3890,5554,6687}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1451]	{1630,4398,6672,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1452]	{1304,3890,4738,7122}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1453]	{3890,4738,5554,6689}	=>	{7111}	1.14E-06	0.58333	720.78	7

[1454]	{2388,3903,6689,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1455]	{3524,6670,6672,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1456]	{3165,6670,6689,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1457]	{3890,6670,8210,8699}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1458]	{2406,5874,6670,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1459]	{6670,6672,8210,8699}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1460]	{1304,3177,3895,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1461]	{1304,3517,3895,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1462]	{1304,1647,3890,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1463]	{1651,3895,8210,8699}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1464]	{1651,3165,6689,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1465]	{3890,4733,5554,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1466]	{3890,4393,6672,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1467]	{1630,2406,7119,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1468]	{1630,7119,7149,8210}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1469]	{1304,3524,6670,6689}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1470]	{3184,5554,6670,7119}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1471]	{3536,3868,3895,6670}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1472]	{3177,3890,4750,6670}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1473]	{1630,3536,6670,7119}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1474]	{1304,3177,3895,6672}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1475]	{1304,1306,3890,6689}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1476]	{1304,3890,6672,8699}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1477]	{3895,4374,5554,7119}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1478]	{1306,3895,5554,7119}	=>	{7111}	1.14E-06	0.58333	720.78	7
[1479]	{2402,2404,4031}	=>	{7481}	1.80E-06	0.39286	720.63	11
[1480]	{3536,3866,3883}	=>	{7481}	1.80E-06	0.39286	720.63	11
[1481]	{3536,3883,4029,7151}	=>	{7481}	1.80E-06	0.39286	720.63	11
[1482]	{3167,4374,4750,5874}	=>	{4397}	1.64E-06	0.52632	720.51	10
[1483]	{3890,3895,7122,8210}	=>	{3892}	1.96E-06	0.22642	719.47	12
[1484]	{3890,3895,6672,7794}	=>	{3892}	1.96E-06	0.22642	719.47	12
[1485]	{3890,3895,7114}	=>	{3892}	3.11E-06	0.22619	718.76	19
[1486]	{2068,3890,5874}	=>	{2076}	1.14E-06	0.41176	718.45	7
[1487]	{3165,5230,7122}	=>	{4406}	1.64E-06	0.43478	718.43	10
[1488]	{1651,3163,5230}	=>	{4406}	1.64E-06	0.43478	718.43	10
[1489]	{2406,3163,7129}	=>	{4406}	1.64E-06	0.43478	718.43	10
[1490]	{4393,7138}	=>	{4043}	1.96E-06	0.60000	718.01	12
[1491]	{1622,3881,7138}	=>	{4043}	1.96E-06	0.60000	718.01	12
[1492]	{1308,3883,7791}	=>	{7481}	1.47E-06	0.39130	717.78	9
[1493]	{3903,5556}	=>	{3892}	1.14E-06	0.22581	717.54	7
[1494]	{3895,3903,7111}	=>	{3892}	1.14E-06	0.22581	717.54	7
[1495]	{3895,7199,8210}	=>	{3892}	1.14E-06	0.22581	717.54	7
[1496]	{3865,3895,7797,8210}	=>	{3892}	1.14E-06	0.22581	717.54	7

[1497]	{1651,3890,6689,8210}	=>	{7111}	2.94E-06	0.58065	717.46	18
[1498]	{4753,4776,5880}	=>	{4771}	1.31E-06	0.47059	716.23	8
[1499]	{1304,1631,5232}	=>	{5220}	1.31E-06	0.57143	716.05	8
[1500]	{1631,4769,5232}	=>	{5220}	1.31E-06	0.57143	716.05	8