EE379

September 11, 2017

1 LAB 1

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Mehtaab

In [ ]:

In [250]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline
```

1.1 Question 1

In [251]:
```
x = np.random.normal(-10,5,1000)
```

In [252]:
```
y = np.random.normal(10,5,1000)
```

In [253]:
```
sum = x+y
```

In [254]:
```
plt.hist(sum,500)
```

Out[254]:
```
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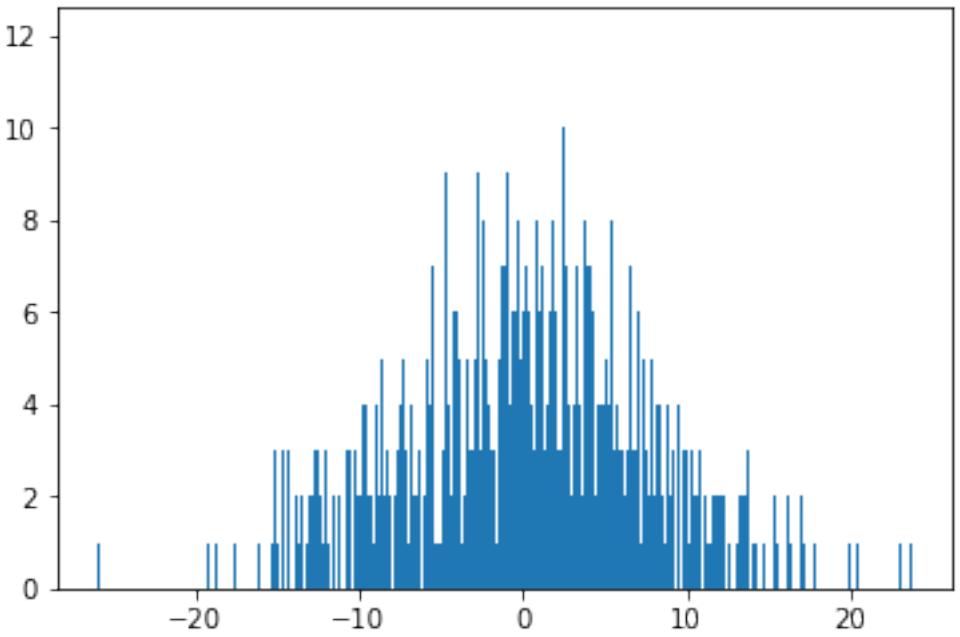
 <a list of 500 Patch objects>)
```




```
In [255]: np.var(sum)

Out[255]: 51.435980320220438

In [256]: np.mean(sum)

Out[256]: 0.10755419492617703

In [ ]:
```

1.2 Question 2

```
In [257]: def F(n):
              return np.sum([-1 if (x == 0) else 1 for x in np.random.binomial(1, 0.5, n)]) /
```

```
list = [F(5) for i in range (1000)];
plt.hist(list)
plt.figure()

list = [F(50) for i in range(1000)]
plt.hist(list, bins=10, range=[-1,1])
plt.figure()

list = [F(250) for i in range(1000)]
plt.hist(list, bins=50)
plt.figure()

list = [F(500) for i in range(1000)]
plt.hist(list, bins=100)
```

```
Out[257]: (array([  1.,   0.,   0.,   0.,   0.,   0.,   0.,   1.,   4.,   0.,   2.,
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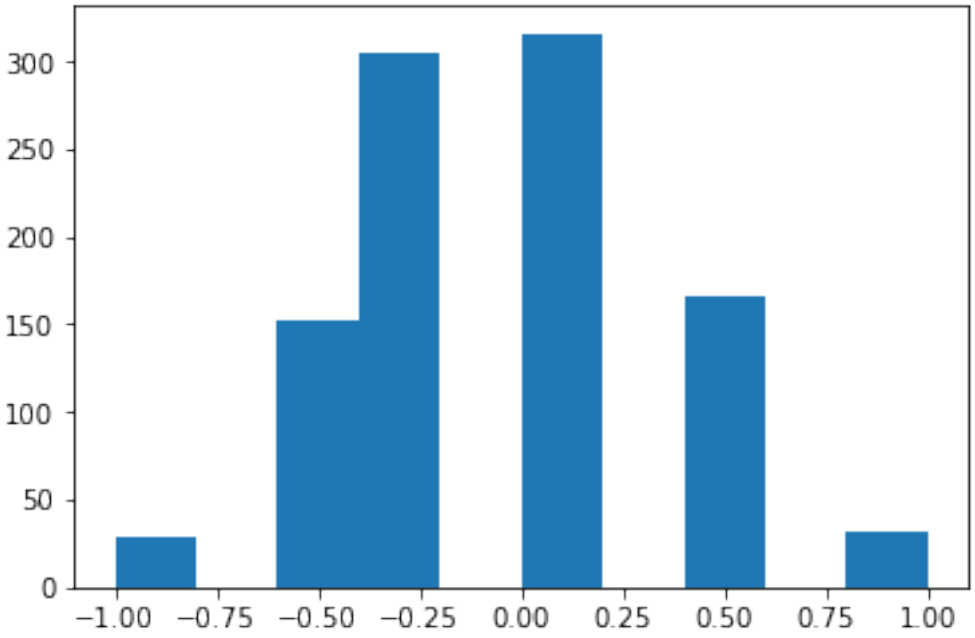
           <a list of 100 Patch objects>)
```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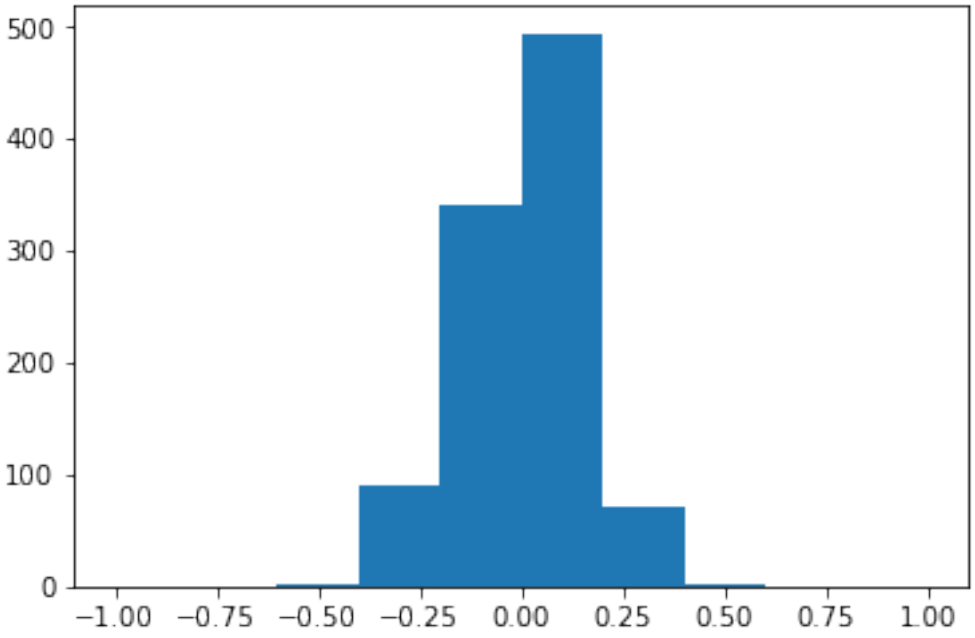
0.75
1.00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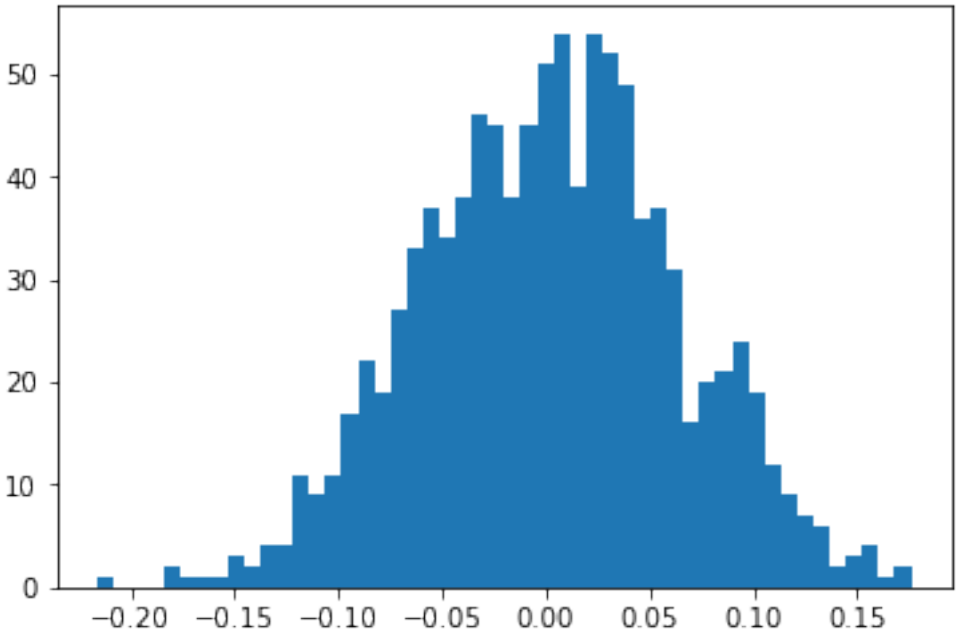
1.00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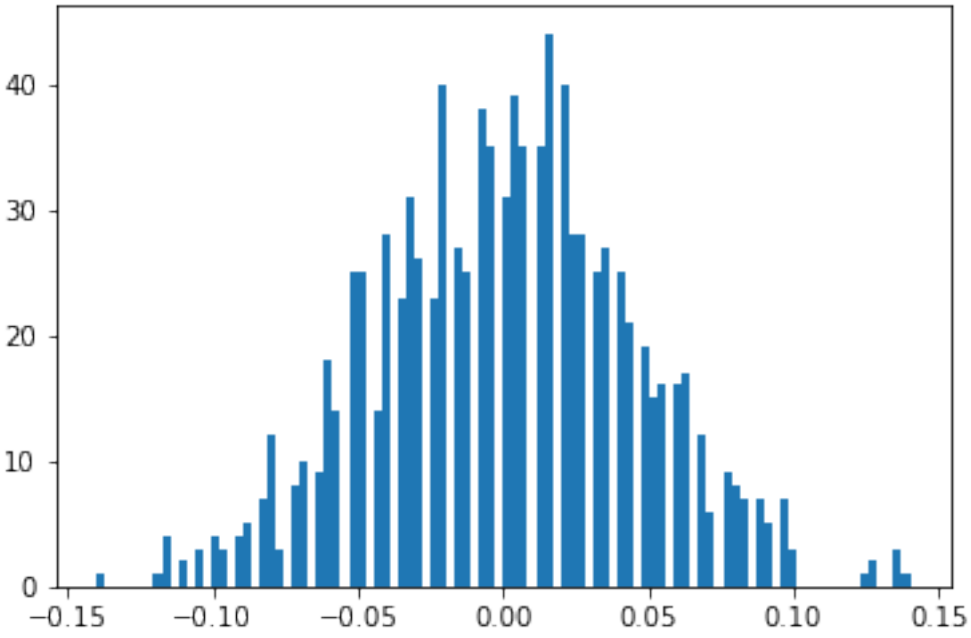
0.10
0.15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−0.05
0.00
0.05
0.10
0.15

In [ ]:

1.3 Question 3

```
In [258]: z = np.random.normal(0,5,25000)

In [259]: mean = np.sum(z)/25000

In [260]: mean

Out[260]: -0.044745259911581931

In [261]: np.square(z - mean)

Out[261]: array([  11.03856802,    1.34812846,    3.19305072, ...,  110.23556548,
                    5.43205325,   11.33258352])

In [262]: sumZ = np.sum(np.square(z - mean))

In [263]: var = sumZ/(25000-1)

In [264]: stddevZ = np.sqrt(var)

In [265]: stddevZ

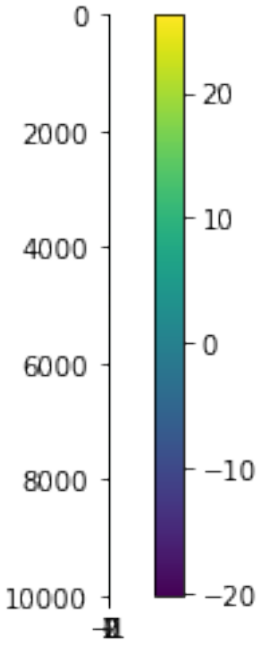
Out[265]: 4.967135496567824

In [ ]:
```

1.4 Question 4

```
In [266]: gauss2d = np.random.multivariate_normal((-5,5), np.matrix([[20, .8],[.8, 30]]), 1000

In [267]: plt.imshow(gauss2d, interpolation="nearest", origin="upper")
          plt.colorbar()
          plt.show()
```



```
In [268]: gauss2d

Out[268]: array([[  4.03671565,   7.43896438],
                 [-12.91199908,   8.3690063 ],
                 [-12.64472028,   6.47100464],
                 ...,
                 [-15.49602444,   7.48879782],
                 [-10.83967887,   4.08204437],
                 [ -2.76544403,  14.14225743]])

In [269]: np.mean(gauss2d, axis=0)

Out[269]: array([-5.01481644,  5.05275575])

In [270]: mean2d = np.sum(gauss2d,axis=0)/10000

In [271]: gauss2d[:,0]-  mean2d[0]

Out[271]: array([  9.05153209,  -7.89718264,  -7.62990384, ..., -10.48120801,
                  -5.82486244,   2.24937241])

In [272]: np.sum(np.square(gauss2d[:,0]-  mean2d[0]))/10000

Out[272]: 20.208625602270924

In [ ]:
```

still to finish Q4

```
In [ ]:
```

1.5 Question 5

```
In [273]: df = pd.read_csv('PatientData.csv', header=None)
          pd.set_option('display.max_columns', None)
          df
```

Out[273]:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13
0	75	0	190	80	91	193	371	174	121	-16	13	64	-2	?
1	56	1	165	64	81	174	401	149	39	25	37	-17	31	?
2	54	0	172	95	138	163	386	185	102	96	34	70	66	23
3	55	0	175	94	100	202	380	179	143	28	11	-5	20	?
4	75	0	190	80	88	181	360	177	103	-16	13	61	3	?
5	13	0	169	51	100	167	321	174	91	107	66	52	88	?
6	40	1	160	52	77	129	377	133	77	77	49	75	65	?
7	49	1	162	54	78	0	376	157	70	67	7	8	51	?
8	44	0	168	56	84	118	354	160	63	61	69	78	66	84

9	50	1	167	67	89	130	383	156	73	85	34	70	71	?
10	62	0	170	72	102	135	401	156	83	72	71	68	72	?
11	45	1	165	86	77	143	373	150	65	12	37	49	26	?
12	54	1	172	58	78	155	382	163	81	-24	42	41	-13	?
13	30	0	170	73	91	180	355	157	104	68	51	60	63	?
14	44	1	160	88	77	158	399	163	94	46	20	45	40	?
15	47	1	150	48	75	132	350	169	65	36	45	68	40	?
16	47	0	171	59	82	145	347	169	61	77	75	77	75	?
17	46	1	158	58	70	120	353	122	52	57	49	-2	54	?
18	73	0	165	63	91	154	392	175	83	73	-24	61	42	?
19	57	1	166	72	82	181	399	158	79	-12	28	50	1	?
20	28	1	160	58	83	251	383	189	183	50	39	46	43	?
21	45	0	169	67	90	122	336	177	78	81	78	67	80	?
22	36	1	153	75	71	132	364	169	82	62	56	45	60	?
23	57	1	165	59	75	157	406	143	92	4	10	58	5	?
24	40	1	153	55	82	140	388	149	82	52	17	105	42	?
25	44	0	169	80	109	128	382	195	60	-34	112	154	7	?
26	34	0	170	73	94	186	373	224	125	90	52	60	77	?
27	31	1	160	54	95	161	407	168	83	10	48	39	30	?
28	56	1	164	65	90	164	420	381	99	-8	153	41	0	?
29	51	1	160	83	96	147	400	301	82	-37	172	-5	-67	160
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	29	1	162	57	83	164	359	154	69	64	54	74	58	?
423	51	0	186	95	94	203	367	171	106	-7	57	61	32	?
424	7	0	119	21	140	157	438	226	81	-40	86	29	69	103
425	36	0	171	93	87	150	362	177	96	44	24	48	36	?
426	35	1	160	53	55	163	340	162	102	40	35	69	37	-84
427	58	0	160	65	133	148	417	260	92	-158	13	63	-29	?
428	64	0	160	63	83	0	364	120	90	29	100	60	40	?
429	8	1	130	24	77	125	358	159	70	87	55	16	76	?
430	11	0	138	29	123	145	361	221	80	112	-17	14	51	-44
431	47	0	166	56	79	145	381	173	101	52	47	60	49	?
432	11	0	140	42	88	123	362	228	81	-18	52	67	33	?
433	70	0	167	60	80	149	290	128	93	-67	111	26	-65	?
434	20	0	178	65	88	155	360	163	71	-22	18	86	-6	?
435	39	1	164	62	79	155	367	153	95	50	36	72	46	?
436	32	1	164	57	77	144	340	148	82	27	55	76	41	?
437	35	1	155	63	87	142	391	137	88	66	48	57	59	?
438	37	0	175	82	88	146	357	179	72	1	149	51	4	?
439	49	1	168	66	94	170	383	152	115	92	-5	65	77	?
440	37	0	176	72	88	153	389	172	89	67	48	58	58	-90
441	37	1	160	50	74	143	374	146	75	68	14	49	55	?
442	65	1	160	50	85	143	363	146	84	-40	-10	54	-28	?
443	41	1	154	75	88	157	384	132	112	65	44	45	55	?
444	29	0	166	63	81	143	325	218	74	24	27	32	25	?
445	45	0	175	75	91	134	376	160	83	91	68	31	80	?
446	20	1	157	57	81	151	363	166	80	43	42	72	42	?
447	53	1	160	70	80	199	382	154	117	-37	4	40	-27	?

448	37	0	190	85	100	137	361	201	73	86	66	52	79	?
449	36	0	166	68	108	176	365	194	116	-85	-19	-61	-70	84
450	32	1	155	55	93	106	386	218	63	54	29	-22	43	103
451	78	1	160	70	79	127	364	138	78	28	79	52	47	?

	14	15	16	17	18	19	20	21	22	23	24	25	26	27	\
0	63	0	52	44	0	0	32	0	0	0	0	0	0	0	
1	53	0	48	0	0	0	24	0	0	0	0	0	0	0	
2	75	0	40	80	0	0	24	0	0	0	0	0	0	20	
3	71	0	72	20	0	0	48	0	0	0	0	0	0	0	
4	?	0	48	40	0	0	28	0	0	0	0	0	0	0	
5	84	0	36	48	0	0	20	0	0	0	0	0	0	20	
6	70	0	44	0	0	0	24	0	0	0	0	0	0	0	
7	67	0	44	36	0	0	24	0	0	0	0	0	0	0	
8	64	0	40	0	0	0	20	0	0	0	0	0	0	0	
9	63	0	44	40	0	0	28	0	0	0	0	0	0	0	
10	70	20	36	48	0	0	36	0	0	0	0	0	0	0	
11	72	0	40	28	0	0	20	0	0	0	0	0	0	0	
12	73	0	72	0	0	0	24	0	0	0	0	0	0	0	
13	56	0	92	0	0	0	32	0	0	0	0	0	0	28	
14	72	0	80	0	0	0	28	0	0	0	0	0	0	20	
15	76	0	48	0	0	0	24	0	0	0	0	0	0	0	
16	67	0	48	0	0	0	20	0	0	0	0	0	0	0	
17	70	0	48	0	0	0	24	0	0	0	0	0	0	0	
18	66	0	44	56	0	0	20	0	0	0	0	0	0	0	
19	66	0	56	16	0	0	28	0	0	0	0	0	0	0	
20	76	16	36	28	0	0	32	0	0	0	0	0	0	0	
21	66	0	36	24	0	0	20	0	0	0	0	0	0	0	
22	77	0	44	12	0	0	24	0	0	0	0	0	0	0	
23	69	0	72	0	0	0	24	0	0	0	0	0	0	0	
24	68	0	80	0	0	0	40	0	0	0	0	0	0	0	
25	63	20	80	0	0	0	44	0	0	0	0	0	0	0	
26	83	0	44	36	0	0	20	0	0	0	0	0	0	16	
27	67	0	52	36	0	0	28	0	0	0	0	0	0	0	
28	79	0	72	0	0	0	32	0	0	0	0	0	0	0	
29	71	0	60	0	0	0	40	0	0	0	0	0	0	0	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	71	0	60	16	16	0	36	0	0	0	0	0	0	0	
423	71	0	80	0	0	0	28	0	0	0	0	0	0	0	
424	70	0	124	0	0	0	84	0	0	0	0	0	0	0	
425	80	0	68	0	0	0	28	0	0	0	0	0	0	0	
426	81	0	64	0	0	0	28	0	0	0	0	0	0	0	
427	70	0	36	68	0	0	16	0	0	0	0	0	0	0	
428	65	0	60	0	0	0	24	0	0	0	0	0	0	0	
429	80	0	36	48	0	0	24	0	0	0	0	0	0	0	
430	93	0	36	68	0	0	20	0	0	0	0	0	0	28	
431	49	0	44	28	0	0	24	0	0	0	0	0	0	0	
432	74	0	40	16	0	0	20	0	0	0	0	0	0	0	

433	120	0	52	0	0	0	24	0	0	0	0	0	0	0
434	71	16	80	0	0	0	36	0	0	1	0	0	0	0
435	81	0	52	16	0	0	32	0	0	0	0	0	0	0
436	81	24	44	0	0	0	44	0	0	0	0	0	0	24
437	62	0	44	44	0	0	24	0	0	0	0	0	0	20
438	62	16	64	0	0	0	40	0	0	0	0	0	0	0
439	72	0	36	60	0	0	20	0	0	0	0	0	0	0
440	55	0	40	32	0	0	20	0	0	0	0	0	0	0
441	65	0	48	20	0	0	24	0	0	0	0	0	0	0
442	68	20	36	36	0	0	36	0	0	0	0	0	0	0
443	62	0	40	40	0	0	20	0	0	0	0	0	0	0
444	78	0	48	16	0	0	28	0	0	0	0	0	0	0
445	70	0	32	32	0	0	20	0	0	0	0	0	0	0
446	75	0	48	0	0	0	28	0	0	0	0	0	0	0
447	63	0	52	24	0	0	28	0	0	0	0	0	0	0
448	73	0	44	36	0	0	24	0	0	0	0	0	0	0
449	84	16	40	40	0	0	40	0	0	0	0	0	0	0
450	80	0	56	0	0	0	32	0	0	0	0	0	0	16
451	75	0	44	28	0	0	24	0	0	0	0	0	0	0

	28	29	30	31	32	33	34	35	36	37	38	39	40	41	\
0	44	20	36	0	28	0	0	0	0	0	0	52	40	0	
1	64	0	0	0	24	0	0	0	0	0	0	32	24	0	
2	56	52	0	0	40	0	0	0	0	0	0	28	116	0	
3	64	36	0	0	36	0	0	0	0	0	0	20	52	48	
4	40	24	0	0	24	0	0	0	0	0	0	52	36	0	
5	44	36	0	0	44	0	0	0	0	0	0	24	64	0	
6	40	32	0	0	24	0	0	0	0	0	0	0	44	28	
7	52	32	0	0	28	0	0	0	0	0	0	0	56	28	
8	44	12	0	0	28	0	0	0	0	0	0	0	36	8	
9	56	24	0	0	32	0	0	0	0	0	0	0	72	0	
10	52	0	0	0	28	0	0	0	0	0	0	0	104	0	
11	40	20	0	0	20	0	0	0	0	0	0	32	44	0	
12	44	44	0	0	28	0	0	0	0	0	0	80	0	0	
13	48	20	0	0	52	0	0	0	0	0	0	36	40	0	
14	72	0	0	0	44	0	0	0	0	0	0	24	64	0	
15	44	28	0	0	28	0	0	0	0	0	0	0	40	40	
16	52	36	0	0	28	0	0	0	0	0	0	0	52	36	
17	48	0	0	0	28	0	0	0	0	0	0	0	44	12	
18	84	0	0	0	28	0	0	0	0	0	0	16	72	0	
19	64	32	0	0	44	0	0	0	0	0	0	0	20	72	
20	44	28	0	0	24	0	0	0	0	0	0	0	52	28	
21	52	36	0	0	28	0	0	0	0	0	0	0	60	32	
22	72	0	0	0	24	0	0	0	0	0	0	16	56	0	
23	48	36	0	0	28	0	0	0	0	0	0	0	28	52	
24	52	28	0	0	32	0	0	0	0	0	0	20	40	32	
25	52	68	0	0	36	0	0	0	0	0	0	0	28	76	
26	48	20	0	0	40	0	0	0	0	0	0	24	72	0	

27	48	52	0	0	28	0	0	0	0	0	0	0	44	68
28	60	36	0	0	40	0	0	0	0	0	0	0	16	64
29	40	56	0	0	24	0	0	0	0	0	0	84	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	52	40	0	0	32	0	0	0	0	0	0	0	48	40
423	40	28	0	0	24	0	0	0	0	0	0	48	0	0
424	64	52	0	0	44	0	0	0	0	0	0	0	52	60
425	68	0	0	0	28	0	0	0	0	0	0	0	56	0
426	44	0	0	0	24	0	0	0	0	0	0	0	28	0
427	40	76	0	0	20	0	0	0	0	0	0	0	32	16
428	80	0	0	0	28	0	0	0	0	0	0	0	36	32
429	60	0	0	0	24	0	0	0	0	0	0	0	60	0
430	32	68	0	0	40	0	0	0	0	0	0	32	52	0
431	56	0	0	0	28	0	0	0	0	0	0	0	72	0
432	40	36	0	0	24	0	0	0	0	0	0	0	32	52
433	28	48	0	0	16	0	0	0	0	0	0	0	20	52
434	40	32	0	0	24	0	0	0	0	0	0	0	28	68
435	60	0	0	0	24	0	0	0	0	0	0	24	52	0
436	40	24	0	0	44	0	0	0	0	0	0	16	20	24
437	68	0	0	0	40	0	0	0	0	0	0	20	64	0
438	44	48	0	0	28	0	0	0	0	0	0	0	40	60
439	92	0	0	0	32	0	0	0	0	0	0	0	80	0
440	56	32	0	0	36	0	0	0	0	0	0	0	60	32
441	60	16	0	0	36	0	0	0	0	0	0	0	72	0
442	44	52	0	0	32	0	0	0	0	0	0	0	32	48
443	48	40	0	0	28	0	0	0	0	0	0	0	48	40
444	40	20	0	0	20	0	0	0	0	0	0	20	16	28
445	40	20	0	0	20	0	0	0	0	0	0	0	72	0
446	56	24	0	0	36	0	0	0	0	0	0	0	56	36
447	44	40	0	0	32	0	0	0	0	0	0	0	24	48
448	56	0	0	0	32	0	0	0	0	0	0	0	76	0
449	40	56	0	0	32	0	0	0	0	0	0	0	28	60
450	64	0	0	0	40	0	0	0	0	0	0	16	60	0
451	56	0	0	0	36	0	0	0	0	0	0	0	20	36

	42	43	44	45	46	47	48	49	50	51	52	53	54	55	\
0	0	0	60	0	0	0	0	0	0	52	0	0	0	0	
1	0	0	40	0	0	0	0	0	0	48	0	0	0	0	
2	0	0	52	0	0	0	0	0	0	52	64	0	0	0	
3	0	0	56	0	0	0	0	0	0	64	32	0	0	0	
4	0	0	60	0	0	0	0	0	0	48	28	0	0	0	
5	0	0	48	0	0	0	0	0	0	44	36	0	0	0	
6	0	0	24	0	0	0	0	0	0	44	16	0	0	0	
7	0	0	24	0	0	0	0	0	0	48	32	0	0	0	
8	0	0	20	0	0	0	0	0	0	40	12	0	0	0	
9	0	0	28	0	0	0	0	0	0	56	28	0	0	0	
10	0	0	36	0	0	0	0	0	0	40	36	0	0	0	
11	0	0	36	0	0	0	0	0	0	40	28	0	0	0	

12	0	0	0	0	0	0	0	0	0	44	36	0	0	0
13	0	0	52	0	0	0	0	0	0	56	0	0	0	0
14	0	0	52	0	0	0	1	0	0	80	0	0	0	0
15	0	0	24	0	0	0	0	0	0	40	32	0	0	0
16	0	0	28	0	0	0	0	0	0	52	32	0	0	0
17	0	0	24	0	0	0	0	0	0	48	16	0	0	0
18	0	0	44	0	0	0	0	0	0	76	0	0	0	0
19	0	0	8	0	0	0	0	0	0	68	20	0	0	0
20	0	0	32	0	0	0	0	0	0	48	24	0	0	0
21	0	0	40	0	0	0	0	0	0	52	24	0	0	0
22	0	0	32	0	0	0	0	0	0	72	0	0	0	0
23	0	0	12	0	0	0	0	0	0	76	0	0	0	0
24	0	0	44	0	0	0	0	0	0	64	0	0	0	0
25	0	0	16	0	0	0	0	0	0	76	0	0	0	0
26	0	0	40	0	0	0	0	0	0	0	12	48	32	0
27	0	0	32	0	0	0	0	0	0	48	48	0	0	0
28	0	0	8	0	0	0	0	0	0	72	0	0	0	0
29	0	0	0	0	0	0	0	0	0	48	48	0	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	28	0	0	0	0	0	0	56	24	0	0	0
423	0	0	0	0	0	0	0	0	0	44	20	0	0	0
424	0	0	40	0	0	0	0	0	0	76	36	0	0	0
425	0	0	16	0	0	0	0	0	0	64	0	0	0	0
426	0	0	16	0	0	0	0	0	0	48	0	0	0	0
427	12	24	16	0	0	0	0	0	0	0	16	32	84	0
428	0	0	12	0	0	0	0	0	0	72	0	0	0	0
429	0	0	40	0	0	0	0	0	0	44	40	0	0	0
430	0	0	44	0	0	0	0	0	0	0	16	36	60	0
431	0	0	28	0	1	0	0	0	0	52	28	0	0	0
432	0	0	20	0	0	0	0	0	0	40	32	0	0	0
433	0	0	12	0	0	0	0	0	0	28	52	0	0	0
434	0	0	12	0	0	0	0	0	0	40	20	0	0	0
435	0	0	48	0	0	0	0	0	0	72	0	0	0	0
436	0	0	24	0	0	0	0	0	0	0	20	44	0	0
437	0	0	40	0	0	0	0	0	0	88	0	0	0	0
438	0	0	16	0	0	0	0	0	0	48	36	0	0	0
439	0	0	24	0	0	0	0	0	0	60	0	0	0	0
440	0	0	40	1	0	0	0	0	0	48	20	0	0	0
441	0	0	36	0	0	0	0	0	0	52	20	0	0	0
442	0	0	20	0	0	0	0	0	0	40	44	0	0	0
443	0	0	28	0	0	0	0	0	0	48	28	0	0	0
444	0	0	24	0	0	0	0	0	0	40	20	0	0	0
445	0	0	20	0	1	0	0	0	0	32	24	0	0	0
446	0	0	40	0	0	0	0	0	0	52	24	0	0	0
447	0	0	12	0	0	0	0	0	0	40	36	0	0	0
448	0	0	28	0	0	0	0	0	0	48	28	0	0	0
449	0	0	12	0	0	0	0	0	0	36	48	0	0	0
450	0	0	32	0	1	0	0	0	0	72	0	0	0	0

```
451   28    0   60    0    0    0    0    0    0   48   28    0    0    0

      56   57   58   59   60   61   62   63   64   65   66   67   68   69   \
0      0    0    0    0    0    0    0    0   56   36    0    0   32    0
1      0    0    0    0    0    0    0    0   44   20    0    0   24    0
2     88    0    0    0    0    0    0    0   36   92    0    0   24    0
3     72    0    0    0    0    0    0    0   60   12    0    0   44    0
4     56    0    0    0    0    0    0    0   48   36    0    0   28    0
5     52    0    0    0    0    0    0    0   28   64    0    0   16    0
6     48    0    0    0    0    0    0   36    0    0    0    0    0    0
7     56    0    0    0    0    0    0   52    0    0    0    0    0    0
8     44    0    0    0    0    0    0    0    0    0    0    0    0    0
9     60    0    0    0    0    0    0    0   28   56    0    0   16    0
10    48    0    0    0    0    0    0   28   24   40    0    0   40    0
11    48    0    0    0    0    0    0    0   40   28    0    0   20    0
12    48    0    0    0    0    0    0    0   84    0    0    0   28    0
13     0    0    0    0    0    0    0    0   40   36    0    0   28    0
14     0    0    0    0    0    0    0    0   36   36    0    0   20    0
15    44    0    0    0    0    0    0    0   60    0    0    0   20    0
16    56    0    0    0    0    0    0   48   32    0    0    0   60    0
17    52    0    0    0    0    0    0    0   24    0    0    0    8    0
18     0    0    0    0    0    0    0    0   36   40    0    0   12    0
19    72    1    0    0    0    0    0    0   56    0    0    0   32    0
20    52    0    0    0    0    0    0   12   76    0    0    0   24    0
21    56    0    0    0    0    0    0   44    0    0    0    0    0    0
22     0    0    0    0    0    0    0    0   28   32    0    0   16    0
23     0    0    0    0    0    0    0   20   56    0    0    0   36    0
24     0    0    0    0    0    0    0   28   28    0    0    0   36    0
25     0    0    0    0    0    0    0   24   76    0    0    0   56    0
26    68    0    0    0    0    0    0    0   24   68    0    0   12    0
27    52    0    0    0    0    0    0    0  100    0    0    0   36    0
28     0    0    0    0    0    0    0    0   68    0    0    0   24    0
29    56    0    0    0    0    0    0    0   64    0    0    0   40    0
..   ...  ...  ...  ...  ...  ...  ...  ...  ...  ...  ...  ...  ...  ...
422   60    0    0    0    0    0    0   32   40    0    0    0   40    0
423   48    0    0    0    0    0    0    0   76    0    0    0   32    0
424   92    0    0    0    0    0    0   20   64    0    0    0   56    0
425    0    0    0    0    0    0    0    0   44    0    0    0   24    0
426    0    0    0    0    0    0    0    0   64    0    0    0   36    0
427   72    0    0    0    0    0    0    0   32   92    0    0   16    0
428    0    0    0    0    0    0    0   16   56    0    0    0   40    0
429   52    0    0    0    0    0    0    0   32   48    0    0   24    0
430   60    0    0    0    0    0    0    0   32   64    0    0   24    0
431   56    0    0    0    0    0    0    0   36   28    0    0   20    0
432   48    0    0    0    0    0    0    0   80    0    0    0   20    0
433   40    0    0    0    0    0    0   16   52    0    0    0   36    0
434   44    0    0    0    0    0    0   16   80    0    0    0   52    0
435    0    0    0    0    0    0    0    0   48   24    0    0   36    0
```

436	8	0	0	0	0	0	0	0	56	0	0	0	32	0
437	0	0	0	0	0	0	0	0	40	44	0	0	20	0
438	52	0	0	0	0	0	0	20	76	0	0	0	44	0
439	0	0	0	0	0	0	0	0	24	68	0	0	12	0
440	52	0	0	0	0	0	0	24	0	0	0	0	0	0
441	60	0	0	0	0	0	0	0	16	0	0	0	8	0
442	48	0	0	0	0	0	0	24	48	0	0	0	40	0
443	56	0	0	0	0	0	0	0	0	0	0	0	0	0
444	44	0	0	0	0	0	0	0	52	0	0	0	28	0
445	40	0	0	0	0	0	0	52	0	0	0	0	0	0
446	56	0	0	0	0	0	0	20	40	0	0	0	36	0
447	48	0	0	0	0	0	0	0	52	0	0	0	28	0
448	56	0	0	0	0	0	0	64	0	0	0	0	0	0
449	52	0	0	0	0	0	0	24	52	40	0	0	48	0
450	0	0	0	0	0	0	0	0	64	0	0	0	12	0
451	52	0	0	0	0	0	0	20	36	28	0	0	36	0

	70	71	72	73	74	75	76	77	78	79	80	81	82	83	\
0	0	0	0	0	0	48	32	0	0	0	56	0	0	0	
1	0	0	0	0	0	0	60	0	0	0	20	0	0	0	
2	0	0	0	0	0	0	128	0	0	0	24	0	1	0	
3	0	0	0	0	0	0	60	44	0	0	32	0	0	0	
4	0	0	0	0	0	44	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	24	44	40	0	0	44	0	0	0	
6	0	0	0	0	0	0	44	16	0	0	24	0	0	0	
7	0	0	0	0	0	0	52	28	0	0	28	0	0	0	
8	0	0	0	0	0	0	36	12	0	0	20	0	0	0	
9	0	0	0	0	0	0	60	0	0	0	32	0	0	0	
10	0	0	0	0	0	0	84	0	0	0	28	0	0	0	
11	0	0	0	0	0	12	24	16	0	0	20	0	0	0	
12	0	0	0	0	0	72	0	0	0	0	0	0	0	0	
13	0	0	0	0	0	32	44	0	0	0	52	0	0	0	
14	0	0	0	0	0	0	80	0	0	0	32	0	0	0	
15	0	0	0	0	0	0	40	36	0	0	24	0	0	0	
16	0	0	0	0	0	0	52	32	0	0	28	0	0	0	
17	0	0	0	0	0	0	48	0	0	0	28	0	0	0	
18	0	0	0	0	0	0	68	0	0	0	32	0	0	0	
19	0	0	0	0	0	0	24	64	0	0	8	0	0	0	
20	1	0	0	0	0	0	48	24	0	0	28	0	0	0	
21	0	0	0	0	0	0	56	28	0	0	32	0	0	0	
22	0	0	0	0	0	0	72	0	0	0	32	0	0	0	
23	0	0	0	0	0	0	40	40	0	0	24	0	0	0	
24	0	0	0	0	0	0	52	24	0	0	32	0	0	0	
25	0	0	0	0	0	0	44	60	0	0	20	0	0	0	
26	0	0	0	0	0	20	48	0	0	0	40	0	0	0	
27	0	0	0	0	0	0	36	60	0	0	20	0	0	0	
28	0	0	0	0	0	0	24	60	0	0	12	0	0	0	
29	0	0	0	0	0	88	0	0	0	0	0	1	0	0	

..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	0	0	0	0	52	36	0	0	32	0	0	0
423	0	0	0	0	0	0	32	44	0	0	20	0	0	0
424	0	0	0	0	0	0	64	56	0	0	48	0	0	0
425	0	0	0	0	0	0	64	0	0	0	24	0	0	0
426	0	0	0	0	0	0	40	0	0	0	24	0	0	0
427	0	0	0	0	0	28	28	80	0	0	40	0	0	0
428	0	0	0	0	0	0	48	16	20	0	28	0	0	0
429	0	0	0	0	0	0	64	8	0	0	24	0	0	0
430	0	0	0	0	0	28	32	64	0	0	40	0	0	0
431	0	0	0	0	0	0	68	0	0	0	32	0	0	0
432	0	0	0	0	0	0	36	44	0	0	24	0	0	0
433	0	0	0	0	0	0	24	48	0	0	12	0	0	0
434	0	0	0	0	0	0	40	52	0	0	28	0	0	0
435	0	0	0	0	0	16	56	0	0	0	40	0	0	0
436	0	0	0	0	0	12	36	16	0	0	32	0	0	0
437	0	0	0	0	0	0	76	0	0	0	20	0	0	0
438	0	0	0	0	0	0	44	48	0	0	28	0	0	0
439	0	0	0	0	0	0	92	0	0	0	32	0	0	0
440	0	0	0	0	0	0	56	0	0	0	36	0	0	0
441	0	0	0	0	0	0	56	0	0	0	32	0	0	0
442	0	0	0	0	0	0	36	48	0	0	20	0	0	0
443	0	0	0	0	0	0	48	40	0	0	28	0	0	0
444	0	0	0	0	0	0	32	20	0	0	16	0	0	0
445	0	0	0	0	0	0	40	0	0	0	20	0	0	0
446	0	0	0	0	0	0	56	20	0	0	36	0	0	0
447	0	0	0	0	0	0	24	56	0	0	8	0	0	0
448	0	0	0	0	0	0	76	0	0	0	32	0	0	0
449	0	0	0	0	0	0	32	60	0	0	16	0	0	0
450	0	0	0	0	0	12	64	0	0	0	36	0	0	0
451	0	0	0	0	0	0	84	0	0	0	36	0	0	0

	84	85	86	87	88	89	90	91	92	93	94	95	96	97	\
0	0	0	0	80	0	0	0	0	0	0	0	0	0	0	
1	0	0	0	0	24	52	0	0	16	0	0	0	0	0	
2	0	0	0	0	24	36	76	0	100	0	0	0	0	0	
3	0	0	0	56	0	0	0	0	0	0	0	0	0	0	
4	0	0	0	88	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	36	60	0	0	24	0	0	0	0	0	
6	0	0	0	0	20	56	0	0	12	0	0	0	0	0	
7	0	0	0	0	20	44	0	0	8	0	0	0	0	0	
8	0	0	0	0	20	56	0	0	12	0	0	0	0	0	
9	0	0	0	0	24	36	32	0	68	0	0	0	0	0	
10	0	0	0	0	24	64	0	0	12	0	0	0	0	0	
11	0	0	0	0	20	44	0	0	12	0	0	0	0	0	
12	0	0	0	0	24	36	28	0	72	0	0	0	0	0	
13	0	0	0	0	44	44	0	0	28	0	0	0	0	0	
14	0	0	0	0	28	48	0	0	20	0	0	1	0	0	

15	0	0	0	0	20	44	0	0	12	0	0	0	0	0
16	0	0	0	0	16	48	20	0	72	0	0	0	0	0
17	0	0	0	60	0	0	0	0	0	0	0	0	0	0
18	0	0	0	72	0	0	0	0	0	0	0	0	0	0
19	0	0	0	60	20	0	0	0	64	0	0	0	0	0
20	0	0	0	0	24	68	0	0	16	0	0	0	0	0
21	0	0	0	0	32	44	0	0	20	0	0	0	0	0
22	0	0	0	0	32	40	0	0	20	0	0	0	0	0
23	0	0	0	0	28	60	0	0	16	0	0	0	0	0
24	0	0	0	0	24	48	0	0	12	0	0	0	0	0
25	0	0	0	76	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	28	48	32	0	12	0	0	0	0	0
27	0	0	0	0	24	40	32	0	72	0	0	0	0	0
28	0	0	0	76	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	20	52	0	0	8	0	0	0	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	0	0	24	52	0	0	16	0	0	0	0	0
423	0	0	0	76	0	0	0	0	0	0	0	0	0	0
424	0	0	0	0	20	92	0	0	12	0	0	0	0	0
425	0	0	0	0	32	56	0	0	20	0	0	0	0	0
426	0	0	0	0	24	44	0	0	12	0	0	0	0	0
427	0	0	0	0	28	36	80	0	96	0	0	0	0	0
428	0	0	0	0	20	64	0	0	12	0	0	0	0	0
429	0	0	0	0	20	20	52	0	52	0	0	0	0	0
430	0	0	0	0	32	24	56	0	88	0	0	0	1	0
431	0	0	0	0	28	52	0	0	20	0	0	0	0	0
432	0	0	0	0	20	32	0	0	8	0	0	0	0	0
433	0	0	0	52	0	0	0	0	0	0	0	0	0	0
434	0	0	0	0	28	60	0	0	20	0	0	0	0	0
435	0	0	0	0	24	52	0	0	8	0	0	0	0	0
436	0	0	0	0	28	48	0	0	20	0	0	0	0	0
437	0	0	0	0	20	60	0	0	8	0	0	0	0	0
438	0	0	0	0	28	40	0	0	16	0	0	0	0	0
439	0	0	0	0	24	44	0	0	12	0	0	0	0	0
440	0	0	0	0	28	60	0	0	16	0	0	0	0	0
441	0	0	0	0	32	56	0	0	20	0	0	0	0	0
442	0	0	0	0	24	48	0	0	12	0	0	0	0	0
443	0	0	0	0	36	20	44	0	68	0	0	0	0	0
444	0	0	0	0	20	52	0	0	12	0	0	0	0	0
445	0	0	0	0	32	60	0	0	20	0	0	0	0	0
446	0	0	0	0	20	60	0	0	12	0	0	0	0	0
447	0	0	0	60	0	0	0	0	0	0	0	0	0	0
448	0	0	0	44	36	0	0	0	52	0	0	0	0	0
449	0	0	0	0	20	16	44	28	56	0	0	0	0	0
450	0	0	0	0	28	52	0	0	16	0	0	0	0	0
451	0	0	0	0	28	40	0	0	16	0	0	0	0	0

	98	99	100	101	102	103	104	105	106	107	108	109	110	111	\

0	0	0	40	52	0	0	28	0	0	0	0	0	0	0
1	0	0	32	52	0	0	20	0	0	0	0	0	0	0
2	0	0	40	28	60	0	96	0	0	0	0	0	0	0
3	0	0	40	44	0	0	20	0	0	0	0	0	0	0
4	0	0	40	52	0	0	28	0	0	0	0	0	0	0
5	0	20	32	60	0	0	40	0	0	0	0	0	0	24
6	0	0	24	56	0	0	16	0	0	0	0	0	0	0
7	0	0	24	48	0	0	16	0	0	0	0	0	0	0
8	0	0	24	48	0	0	12	0	0	0	0	0	0	0
9	0	0	36	44	0	0	20	0	0	0	0	0	0	0
10	0	20	16	56	0	0	28	0	0	0	0	0	0	24
11	0	0	36	48	0	0	24	0	0	0	0	0	0	0
12	0	0	36	32	0	0	24	0	0	0	0	0	0	0
13	0	0	48	24	0	0	32	0	0	0	0	0	0	0
14	0	0	36	36	0	0	20	0	0	0	0	0	0	0
15	0	0	28	44	0	0	20	0	0	0	0	0	0	0
16	0	0	20	48	20	0	76	0	0	0	0	0	0	0
17	1	60	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	24	64	0	0	16	0	0	0	0	0	0	0
19	0	0	44	24	0	0	20	0	0	0	0	0	0	0
20	0	0	36	48	0	0	24	0	0	0	0	0	0	0
21	0	0	40	36	24	0	24	0	0	0	0	0	0	0
22	0	0	40	28	0	0	24	0	0	0	0	0	0	0
23	0	0	32	44	0	0	20	0	0	0	0	0	0	0
24	0	0	28	44	0	0	16	0	0	0	0	0	0	0
25	0	0	20	64	0	0	12	0	0	0	0	0	0	0
26	0	0	32	48	0	0	20	0	0	1	1	0	0	0
27	0	0	36	44	0	0	24	0	0	0	0	0	0	0
28	0	72	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	36	48	0	0	20	0	0	0	0	0	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	32	52	0	0	20	0	0	0	0	0	0	0
423	0	0	36	52	0	0	24	0	0	0	0	0	0	0
424	0	0	28	80	0	0	16	0	0	0	0	0	0	0
425	0	0	36	44	0	0	24	0	0	0	0	0	0	0
426	0	0	24	48	0	0	16	0	0	0	0	0	0	0
427	0	0	40	60	0	0	24	0	0	0	0	0	0	0
428	0	0	24	64	0	0	12	0	0	0	0	0	0	0
429	0	0	40	40	0	0	24	0	0	0	0	0	0	0
430	0	0	32	28	72	0	20	0	0	1	0	0	0	0
431	0	0	32	52	0	0	20	0	0	0	0	0	0	0
432	0	0	24	20	48	0	56	0	0	0	0	0	0	0
433	0	44	0	0	0	0	0	0	0	0	0	0	0	60
434	0	0	44	48	0	0	36	0	0	0	0	0	0	0
435	0	0	44	32	0	0	32	0	0	0	0	0	0	0
436	0	0	36	40	0	0	24	0	0	0	0	0	0	0
437	0	0	24	60	0	0	16	0	0	0	0	0	0	0
438	0	0	36	40	0	0	20	0	0	0	0	0	0	0

439	0	0	44	64	0	0	32	0	0	0	0	0	0	0
440	0	0	32	48	0	0	20	0	0	0	0	0	0	0
441	0	0	36	44	0	0	24	0	0	0	0	0	0	0
442	0	0	40	20	0	0	24	0	0	0	0	0	0	0
443	0	0	44	32	28	0	28	0	0	0	0	0	0	0
444	0	0	28	44	0	0	20	0	0	0	0	0	0	0
445	0	0	28	64	0	0	16	0	0	0	0	0	0	0
446	0	0	44	48	0	0	28	0	0	0	0	0	0	0
447	0	0	16	56	0	0	8	0	0	0	0	0	0	0
448	0	0	32	44	0	0	20	0	0	0	0	0	0	0
449	0	0	84	28	0	0	60	0	0	0	0	0	0	0
450	0	0	36	44	0	0	20	0	0	0	0	0	0	0
451	0	0	44	40	0	0	24	0	0	0	0	0	0	0

	112	113	114	115	116	117	118	119	120	121	122	123	124	125	\
0	48	48	0	0	32	0	0	0	0	0	0	0	52	52	
1	44	48	0	0	32	0	0	0	0	0	0	0	48	44	
2	48	20	56	24	32	0	0	0	0	0	0	0	44	88	
3	52	40	0	0	32	0	0	0	0	0	0	0	56	48	
4	48	48	0	0	32	0	0	0	0	0	0	0	48	52	
5	32	60	0	0	44	0	0	0	0	0	0	0	52	40	
6	36	48	0	0	24	0	0	0	0	0	0	0	40	44	
7	36	44	0	0	24	0	0	0	0	0	0	0	44	48	
8	28	44	0	0	16	0	0	0	0	0	0	0	44	32	
9	40	48	0	0	24	0	0	0	0	0	0	0	56	40	
10	28	52	0	0	40	0	0	0	0	0	0	24	32	56	
11	40	48	0	0	24	0	0	0	0	0	0	0	36	56	
12	44	44	0	0	28	0	0	0	0	0	0	0	48	52	
13	52	36	0	0	36	0	0	0	0	0	0	0	60	12	
14	52	20	0	0	32	0	0	0	0	0	0	0	48	12	
15	48	20	0	0	20	0	0	0	0	0	0	0	48	24	
16	24	52	0	0	12	0	0	0	0	0	0	0	56	28	
17	32	44	0	0	16	0	0	0	0	0	0	0	48	40	
18	40	52	0	0	28	0	0	0	0	0	0	0	44	52	
19	52	28	0	0	32	0	0	0	0	0	0	0	60	20	
20	48	32	0	0	32	0	0	0	0	0	0	0	48	28	
21	40	44	0	0	24	0	0	0	0	0	0	0	44	56	
22	44	28	0	0	28	0	0	0	0	0	0	0	48	24	
23	40	64	0	0	24	0	0	0	0	0	0	0	44	48	
24	40	40	0	0	24	0	0	0	0	0	0	0	48	40	
25	32	56	0	0	20	0	0	0	0	0	0	0	36	68	
26	36	48	0	0	24	0	0	1	1	0	0	0	56	24	
27	64	36	0	0	40	0	0	0	0	0	0	0	48	52	
28	48	52	0	0	32	0	0	0	0	0	0	0	44	56	
29	44	52	0	0	28	0	0	0	0	1	0	0	44	68	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	56	32	0	0	28	0	0	0	0	0	0	0	60	40	
423	44	48	0	0	32	0	0	0	0	0	0	0	40	60	

424	28	84	0	0	20	0	0	0	0	0	0	0	32	88
425	48	32	0	0	24	0	0	0	0	0	0	0	44	24
426	36	40	0	0	20	0	0	0	0	0	0	0	48	24
427	48	84	0	0	36	0	0	0	0	0	0	0	44	80
428	32	60	0	0	16	0	0	0	0	0	0	0	48	52
429	64	16	0	0	48	0	0	0	0	0	0	0	64	20
430	36	96	0	0	24	0	0	0	0	0	0	0	52	72
431	48	40	0	0	24	0	0	0	0	0	0	0	48	40
432	32	40	0	0	20	0	0	0	0	0	0	0	40	40
433	0	0	0	0	0	0	0	0	0	0	1	0	28	60
434	52	44	0	0	40	0	0	0	0	0	0	0	44	36
435	52	28	0	0	36	0	0	0	0	0	0	0	52	36
436	48	16	0	0	32	0	0	0	0	0	0	0	44	20
437	32	56	0	0	20	0	0	0	0	0	0	0	40	48
438	44	36	0	0	28	0	0	0	0	0	0	0	48	44
439	56	60	0	0	40	0	0	0	0	0	0	0	44	56
440	36	48	0	0	24	0	0	0	0	0	0	0	56	48
441	60	24	0	0	36	0	0	0	0	0	0	0	68	20
442	48	28	0	0	32	0	0	0	0	0	0	0	48	40
443	44	48	0	0	28	0	0	0	0	0	0	0	52	36
444	40	32	0	0	24	0	0	0	0	0	0	0	44	24
445	32	56	0	0	16	0	0	0	0	0	0	0	48	52
446	72	20	0	0	56	1	0	0	0	0	0	0	52	36
447	28	52	0	0	16	0	0	0	0	0	0	0	32	48
448	56	24	0	0	36	0	0	0	0	0	0	0	64	20
449	44	68	0	0	32	0	0	0	0	0	0	0	52	68
450	44	40	0	0	28	0	0	0	0	0	0	0	52	40
451	48	36	0	0	32	0	0	0	0	0	0	0	48	40

	126	127	128	129	130	131	132	133	134	135	136	137	138	139	\
0	0	0	36	0	0	0	0	0	0	0	52	48	0	0	
1	0	0	32	0	0	0	0	0	0	0	48	40	0	0	
2	0	0	28	0	0	0	0	0	0	0	44	76	0	0	
3	0	0	36	0	0	0	0	0	0	0	60	48	0	0	
4	0	0	32	0	0	0	0	0	0	0	52	44	0	0	
5	0	0	36	0	0	0	0	0	0	0	44	40	0	0	
6	0	0	28	0	0	0	0	0	0	0	40	44	0	0	
7	0	0	28	0	0	0	0	0	0	0	48	44	0	0	
8	0	0	32	0	0	0	0	0	0	0	44	28	0	0	
9	0	0	40	0	0	0	0	0	0	0	52	36	0	0	
10	0	0	40	0	0	0	0	0	0	20	36	56	0	0	
11	0	0	24	0	0	0	0	0	0	0	40	52	0	0	
12	0	0	32	0	0	0	0	0	0	0	44	52	0	0	
13	20	0	36	0	0	0	0	0	0	24	52	12	0	0	
14	0	0	24	0	0	0	0	0	0	16	44	12	0	0	
15	0	0	28	0	0	0	0	0	0	0	48	36	0	0	
16	0	0	40	0	0	0	0	0	0	0	52	36	0	0	
17	0	0	32	0	0	0	0	0	0	0	48	36	0	0	

18	0	0	32	0	0	0	0	0	0	0	48	52	0	0
19	0	0	36	0	0	0	0	0	0	0	64	24	0	0
20	0	0	32	0	0	0	0	0	0	16	40	28	0	0
21	0	0	32	0	0	0	0	0	0	0	40	56	0	0
22	0	0	32	0	0	0	0	0	0	0	48	36	0	0
23	0	0	28	0	0	0	0	0	0	0	48	44	0	0
24	0	0	28	0	0	0	0	0	0	0	52	36	0	0
25	0	0	24	0	0	0	0	0	0	0	44	68	0	0
26	0	0	36	0	0	0	0	0	0	0	56	40	0	0
27	0	0	28	0	0	0	0	0	0	0	48	56	0	0
28	0	0	28	0	0	0	0	0	0	0	52	48	0	0
29	0	0	28	0	0	0	0	0	0	0	44	68	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	40	0	0	0	0	0	0	0	52	40	0	0
423	0	0	28	0	0	0	0	0	0	0	44	56	0	0
424	0	0	20	0	0	0	0	0	0	0	40	80	0	0
425	0	0	32	0	0	0	0	0	0	0	48	20	0	0
426	24	16	32	0	0	0	0	0	0	0	52	72	0	0
427	0	0	32	0	0	0	0	0	0	0	36	88	0	0
428	0	0	32	0	0	0	0	0	0	0	52	44	0	0
429	0	0	44	0	0	0	0	0	0	0	60	20	0	0
430	0	0	36	0	0	0	0	0	0	24	32	72	0	0
431	0	0	32	0	0	0	0	0	0	0	48	36	0	0
432	0	0	24	0	0	0	0	0	0	0	40	44	0	0
433	0	0	20	0	0	0	0	0	0	0	32	56	0	0
434	0	0	32	0	0	0	0	0	0	0	40	48	0	0
435	0	0	32	0	0	0	0	0	0	0	52	36	0	0
436	16	0	28	0	0	0	0	0	0	16	40	16	0	0
437	0	0	28	0	0	0	0	0	0	0	44	40	0	0
438	0	0	28	0	0	0	0	0	0	0	48	40	0	0
439	0	0	28	0	0	0	0	0	0	0	44	52	0	0
440	0	0	40	0	0	0	0	0	0	16	40	48	0	0
441	0	0	48	0	0	0	0	0	0	0	68	20	0	0
442	0	0	32	0	0	0	0	0	0	0	44	56	0	0
443	0	0	32	0	0	0	0	0	0	0	52	40	0	0
444	0	0	28	0	0	0	0	0	0	0	44	20	0	0
445	0	0	32	0	0	0	0	0	0	0	40	52	0	0
446	0	0	36	0	0	0	0	0	0	0	52	36	0	0
447	0	0	20	0	0	0	0	0	0	0	40	40	0	0
448	16	0	44	0	0	0	0	0	0	0	52	32	0	0
449	0	0	40	0	0	0	0	0	0	0	48	60	0	0
450	0	0	36	0	0	0	0	0	0	0	48	40	0	0
451	0	0	32	0	0	0	0	0	0	0	52	40	0	0

	140	141	142	143	144	145	146	147	148	149	150	151	152	153	\
0	32	0	0	0	0	0	0	0	56	44	0	0	32	0	
1	28	0	0	0	0	0	0	0	48	0	0	0	28	0	
2	28	0	0	0	0	0	0	0	44	72	0	0	24	0	

3	36	0	0	0	0	0	0	0	64	40	0	0	40	0
4	28	0	0	0	0	0	0	0	52	48	0	0	32	0
5	32	0	0	0	0	0	0	20	36	56	0	0	40	0
6	24	0	0	0	0	0	0	0	44	0	0	0	24	0
7	28	0	0	0	0	0	0	0	48	40	0	0	24	0
8	28	0	0	0	0	0	0	0	40	24	0	0	24	0
9	32	0	0	0	0	0	0	20	44	36	0	0	44	0
10	40	0	0	0	0	0	0	20	40	52	0	0	40	0
11	28	0	0	0	0	0	0	0	40	36	0	0	24	0
12	32	0	0	0	0	0	0	0	44	48	0	0	28	0
13	52	0	0	0	0	0	0	24	48	0	0	0	48	0
14	36	0	0	0	0	0	0	16	64	0	0	0	40	0
15	28	0	0	0	0	0	0	0	48	32	0	0	28	0
16	32	0	0	0	0	0	0	0	48	36	0	0	28	0
17	28	0	0	0	0	0	0	0	52	0	0	0	28	0
18	28	0	0	0	0	0	0	0	64	0	0	0	28	0
19	40	0	0	0	0	0	0	0	68	20	0	0	40	0
20	40	0	0	0	0	0	0	16	44	36	0	0	40	0
21	24	0	0	0	0	0	0	20	40	48	0	0	40	0
22	28	0	0	0	0	0	0	0	48	32	0	0	24	0
23	28	0	0	0	0	0	0	0	56	12	0	0	36	0
24	32	0	0	0	0	0	0	0	52	0	0	0	28	0
25	24	0	0	0	0	0	0	0	60	0	0	0	24	0
26	32	0	0	0	0	0	0	0	60	36	0	0	32	0
27	24	0	0	0	0	0	0	0	48	56	0	0	28	0
28	32	0	0	0	0	0	0	0	64	0	0	0	36	0
29	28	0	0	0	0	0	0	0	44	64	0	0	28	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	32	0	0	0	0	0	0	0	52	36	0	0	28	0
423	28	0	0	0	0	0	0	0	40	56	0	0	24	0
424	24	0	0	0	0	0	0	0	80	32	0	0	40	0
425	32	0	0	0	0	0	0	0	48	16	0	0	28	0
426	32	0	0	0	0	0	0	0	52	68	0	0	28	0
427	20	0	0	0	0	0	0	16	40	88	0	0	36	0
428	32	0	0	0	0	0	0	0	72	20	0	0	28	0
429	24	0	0	0	0	0	0	0	36	40	0	0	20	0
430	40	0	0	0	0	0	0	24	32	72	0	0	40	0
431	24	0	0	0	0	0	0	0	48	0	0	0	28	0
432	28	0	0	0	0	0	0	0	36	44	0	0	20	0
433	20	0	0	0	0	0	0	0	28	40	0	0	16	0
434	20	0	0	0	0	0	0	16	48	0	0	0	36	0
435	32	0	0	0	0	0	0	0	52	32	0	0	28	0
436	36	0	0	0	0	0	0	16	40	12	0	0	36	0
437	24	0	0	0	0	0	0	0	48	0	0	0	28	0
438	28	0	0	0	0	0	0	12	48	36	0	0	36	0
439	24	0	0	0	0	0	0	0	56	40	0	0	28	0
440	40	0	0	0	0	0	0	20	40	44	0	0	40	0
441	44	0	0	0	0	0	0	0	72	20	0	0	48	1

442	32	0	0	0	0	0	0	0	40	56	0	0	28	0
443	32	0	0	0	0	0	0	16	44	40	0	0	40	0
444	24	0	0	0	0	0	0	0	40	24	0	0	24	0
445	28	0	0	0	0	0	0	0	40	48	0	0	24	0
446	32	0	0	0	0	0	0	0	52	32	0	0	28	0
447	24	0	0	0	0	0	0	0	40	52	0	0	24	0
448	28	0	0	0	0	0	0	0	52	32	0	0	28	0
449	32	0	0	0	0	0	0	0	44	56	0	0	32	0
450	28	0	0	0	0	0	0	16	44	32	0	0	36	0
451	36	0	0	0	0	0	0	0	48	40	0	0	32	0

	154	155	156	157	158	159	160	161	162	163	164	165	166	167	\
0	0	0	0	0	0	-0.2	0.0	6.1	-1.0	0.0	0.0	0.6	2.1	13.6	
1	0	0	0	0	0	-0.6	0.0	7.2	0.0	0.0	0.0	0.4	1.5	17.2	
2	0	0	0	0	0	1.0	0.0	4.5	-2.8	0.0	0.0	0.3	2.5	-2.2	
3	0	0	0	0	0	0.9	0.0	7.8	-0.7	0.0	0.0	1.1	1.9	27.3	
4	0	0	0	0	0	0.0	0.0	5.2	-1.4	0.0	0.0	0.9	2.3	9.6	
5	0	0	0	0	0	0.5	0.0	2.7	-6.4	0.0	0.0	0.9	1.7	-10.5	
6	0	0	0	0	0	-0.5	0.0	1.8	0.0	0.0	0.0	0.2	1.0	3.9	
7	0	0	0	0	0	-0.3	0.0	4.1	-1.1	0.0	0.0	0.8	1.0	7.1	
8	0	0	0	0	0	0.1	0.0	2.3	0.0	0.0	0.0	0.4	1.0	4.6	
9	0	0	0	0	0	-0.1	0.0	3.5	-2.0	0.0	0.0	0.4	1.3	3.7	
10	0	0	0	0	0	-0.4	-0.5	5.8	-1.9	0.0	0.0	0.8	0.4	5.4	
11	0	0	0	0	0	0.4	0.0	6.1	-1.7	0.0	0.0	0.8	1.6	9.9	
12	0	0	0	0	0	-0.2	0.0	6.3	0.0	0.0	0.0	0.8	0.7	22.6	
13	0	0	0	0	0	0.2	0.0	3.2	0.0	0.0	0.0	0.4	1.1	14.7	
14	0	0	0	0	0	0.2	0.0	10.2	0.0	0.0	0.0	0.6	2.3	40.8	
15	0	0	0	0	0	0.1	0.0	5.6	0.0	0.0	0.0	0.3	1.7	13.4	
16	0	0	0	0	0	-0.5	0.0	2.2	0.0	0.0	0.0	0.4	0.7	5.2	
17	0	0	0	0	0	-0.5	0.0	3.2	0.0	0.0	0.0	0.2	0.5	7.6	
18	0	0	0	0	0	0.0	0.0	2.4	-0.8	0.0	0.0	0.7	1.0	3.0	
19	0	0	0	0	0	0.1	0.0	9.5	-0.6	0.0	0.0	0.9	1.7	26.2	
20	0	0	0	0	0	0.5	-0.4	4.8	-0.9	0.0	0.0	0.7	3.0	7.1	
21	0	0	0	0	0	-0.5	0.0	3.0	-1.4	0.0	0.0	0.5	0.3	3.8	
22	0	0	0	0	0	0.4	0.0	5.2	-0.6	0.0	0.0	0.8	1.0	11.1	
23	0	0	0	0	0	0.1	0.0	5.9	0.0	0.0	0.0	0.6	1.0	21.2	
24	0	0	0	0	0	-0.1	0.0	4.6	0.0	0.0	0.0	-0.2	1.9	18.4	
25	0	0	0	0	0	-0.9	-0.6	8.0	0.0	0.0	0.0	-0.3	-1.5	31.4	
26	0	0	0	0	0	0.1	0.0	1.9	-1.4	0.0	0.0	0.8	1.3	1.6	
27	0	0	0	0	0	0.1	0.0	7.8	-0.8	0.0	0.0	0.7	1.8	18.8	
28	0	0	0	0	0	-0.9	0.0	10.4	0.0	0.0	0.0	0.9	-1.4	37.4	
29	0	0	0	0	0	-1.7	0.0	12.7	0.0	0.0	0.0	0.3	-1.7	38.1	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	0	0	0	0	0	-0.2	0.0	3.9	-0.4	0.4	0.0	0.3	1.6	11.7	
423	0	0	0	0	0	0.0	0.0	4.1	0.0	0.0	0.0	0.9	1.2	16.4	
424	0	0	0	0	0	-0.6	0.0	3.2	0.0	0.0	0.0	1.3	1.0	19.8	
425	0	0	0	0	0	0.4	0.0	6.8	0.0	0.0	0.0	1.1	2.4	23.1	
426	0	0	0	0	0	0.1	0.0	4.4	0.0	0.0	0.0	0.4	1.3	14.0	

427	0	0	0	0	0	0.1	0.0	2.5	-3.3	0.0	0.0	0.4	0.9	-6.7
428	0	0	0	0	0	-0.1	0.0	4.4	0.0	0.0	0.0	0.4	-0.2	13.2
429	0	0	0	0	0	-0.2	0.0	6.2	-5.2	0.0	0.0	1.0	1.1	-1.3
430	0	0	0	0	0	1.0	0.0	3.8	-3.2	0.0	0.0	1.1	2.0	-4.0
431	0	0	0	0	0	-0.3	0.0	4.8	-1.2	0.0	0.0	0.5	0.9	8.9
432	0	0	0	0	0	0.6	0.0	5.0	-0.8	0.0	0.0	0.5	2.0	9.4
433	0	0	0	0	0	-0.3	0.0	4.0	0.0	0.0	0.0	0.9	-0.3	10.4
434	0	0	0	0	0	0.2	-0.5	6.6	0.0	0.0	0.0	-0.1	1.9	26.0
435	0	0	0	0	0	0.2	0.0	6.1	-0.6	0.0	0.0	0.5	1.1	15.4
436	0	0	0	0	0	-0.1	-0.7	7.8	0.0	0.0	0.0	0.5	1.6	16.3
437	0	0	0	0	0	-0.3	0.0	4.7	-1.7	0.0	0.0	0.9	1.3	6.6
438	0	0	0	0	0	-0.1	-0.6	8.4	0.0	0.0	0.0	0.8	-0.4	26.4
439	0	0	0	0	0	0.1	0.0	3.0	-2.6	0.0	0.0	0.5	1.3	-2.4
440	0	0	0	0	0	0.0	0.0	5.0	-0.6	0.0	0.0	0.4	1.5	9.1
441	0	1	0	0	0	-0.1	0.0	3.9	-0.8	0.0	0.0	0.7	1.4	8.5
442	0	0	0	0	0	-0.5	-0.6	7.9	-1.1	0.0	0.0	0.8	1.6	11.7
443	0	0	0	0	0	-0.1	0.0	3.1	-1.7	0.0	0.0	0.7	0.8	2.8
444	0	0	0	0	0	0.1	0.0	5.6	-0.8	0.0	0.0	0.9	2.7	12.8
445	0	0	0	0	0	0.1	0.0	2.3	-1.4	0.0	0.0	0.6	0.7	1.4
446	0	0	0	0	0	0.1	0.0	6.1	0.0	0.0	0.0	0.4	1.9	14.6
447	0	0	0	0	0	0.0	0.0	6.2	-0.5	0.0	0.0	0.8	0.8	15.5
448	0	0	0	0	0	-0.2	0.0	3.3	-1.6	0.0	0.0	0.7	1.1	4.4
449	0	0	0	0	0	0.1	-0.4	8.4	-5.8	0.0	0.0	1.3	2.1	4.9
450	0	0	0	0	0	-0.4	0.0	5.2	0.0	0.0	0.0	0.7	2.2	14.5
451	0	0	0	0	0	-0.4	0.0	10.3	-1.7	0.0	0.0	0.6	0.4	20.3

	168	169	170	171	172	173	174	175	176	177	178	179	180	\
0	30.8	0.0	0.0	1.7	-1.0	0.6	0.0	1.3	1.5	3.7	14.5	0.1	-5.2	
1	26.5	0.0	0.0	5.5	0.0	0.0	0.0	0.1	1.7	17.6	29.5	0.3	-1.6	
2	19.8	0.8	-0.4	6.4	-1.3	0.0	0.0	0.7	2.7	14.2	37.9	-0.2	-0.6	
3	45.1	0.1	0.0	9.1	-2.6	0.0	0.0	0.4	1.5	24.5	36.8	-0.4	-0.4	
4	31.6	0.1	0.0	1.6	-0.5	0.0	0.0	1.9	1.7	2.6	18.9	0.2	-3.8	
5	7.1	0.1	-1.2	19.1	-2.3	0.0	0.0	1.4	4.3	36.7	84.8	-0.4	-2.3	
6	10.5	-0.1	0.0	7.6	-1.1	0.0	0.0	0.5	1.4	13.5	22.7	0.0	0.0	
7	13.7	-0.3	0.0	8.4	-1.5	0.0	0.0	0.6	0.7	19.4	22.9	0.0	0.0	
8	11.6	1.2	0.0	5.4	-0.7	0.0	0.0	1.8	2.8	11.4	31.0	1.1	0.0	
9	13.5	0.0	0.0	9.9	-0.8	0.0	0.0	1.2	1.2	26.8	35.2	0.0	0.0	
10	8.4	-0.8	0.0	7.4	0.0	0.0	0.0	1.7	1.4	19.2	29.2	0.0	0.0	
11	22.7	0.1	0.0	4.5	-1.3	0.0	0.0	1.2	1.8	7.7	21.7	0.0	-2.6	
12	26.9	-0.1	0.0	3.7	-2.6	0.0	0.0	0.9	0.8	2.4	7.2	0.0	-3.5	
13	21.9	0.0	-1.3	14.6	-0.4	0.0	0.0	0.8	1.7	32.8	44.0	-0.1	-2.6	
14	58.2	0.0	-0.5	12.9	0.0	0.0	0.0	0.9	2.0	45.9	61.1	-0.2	-0.6	
15	25.9	0.1	0.0	7.9	-1.8	0.0	0.0	1.2	2.3	14.8	31.8	-0.1	0.0	
16	10.9	-0.2	0.0	9.8	-1.7	0.0	0.0	1.4	2.6	22.4	42.6	0.0	0.0	
17	10.5	0.3	0.0	6.0	0.0	0.0	0.0	0.1	0.7	14.4	18.3	0.6	0.0	
18	11.6	-0.1	0.0	3.8	0.0	0.0	0.0	0.9	0.2	15.9	17.0	-0.2	-0.5	
19	39.4	0.0	0.0	3.4	-1.1	0.0	0.0	1.2	1.8	9.1	23.1	-0.2	0.0	
20	37.1	0.7	0.0	7.3	-1.7	0.0	0.0	1.0	3.7	13.7	50.7	0.2	0.0	

21	5.3	-0.5	0.0	8.0	-1.3	0.0	0.0	1.5	1.5	18.5	26.6	0.0	0.0
22	17.3	0.2	0.0	7.8	0.0	0.0	0.0	1.1	1.8	28.0	39.1	0.0	-0.4
23	27.2	-0.1	0.0	4.6	-1.1	0.0	0.0	0.8	0.7	9.1	12.6	-0.2	0.0
24	31.7	-0.4	0.0	11.2	-0.9	0.0	0.0	0.8	1.6	27.9	39.1	-0.2	-0.5
25	16.1	0.0	0.0	4.5	-4.7	0.0	0.0	-0.1	1.8	-4.2	13.4	0.9	0.0
26	10.7	0.5	-0.4	9.4	-0.7	0.0	0.0	1.6	2.1	21.5	36.2	0.2	-0.7
27	33.2	0.1	0.0	9.8	-3.2	0.0	0.0	0.8	3.0	15.2	39.2	0.0	0.0
28	21.2	-0.2	0.0	4.3	-0.7	0.0	0.0	1.1	0.1	11.7	13.3	0.7	0.0
29	12.3	-0.3	0.0	4.5	-4.7	0.0	0.0	0.1	-0.8	-4.1	-16.2	1.3	-10.6
..	...	...	...	...	...	...	...	...	...	...	...	...	...
422	22.5	-0.3	0.0	12.7	-3.1	0.0	0.0	0.8	2.8	26.8	45.8	0.0	0.0
423	27.4	0.1	0.0	4.4	-2.8	0.0	0.0	1.6	2.2	4.9	25.1	-0.1	-3.3
424	31.2	1.9	0.0	5.7	-9.2	0.0	0.0	1.5	7.2	-5.7	76.3	2.5	0.0
425	42.3	0.8	0.0	9.1	0.0	0.0	0.0	1.4	2.2	30.9	48.5	0.4	0.0
426	23.3	-0.8	0.0	7.0	0.0	0.0	0.0	1.1	1.6	15.4	24.0	-1.2	0.0
427	0.5	0.2	0.0	4.2	-2.9	0.0	0.0	0.7	1.0	-2.6	4.0	-0.6	0.0
428	12.4	0.0	0.0	4.3	0.0	0.0	0.0	0.6	0.6	17.2	20.9	0.5	0.0
429	5.9	-0.8	0.0	10.4	0.0	0.0	0.0	1.0	2.0	31.2	44.4	-0.3	0.0
430	19.2	-0.3	-2.7	15.7	-2.3	0.0	0.0	0.9	0.9	13.6	24.0	-1.7	-5.3
431	15.2	-0.6	0.0	5.8	0.0	0.0	0.0	1.1	1.3	16.2	25.3	-0.1	0.0
432	25.4	0.9	0.0	6.3	-5.2	0.0	0.0	1.2	3.4	3.3	30.5	0.4	0.0
433	9.1	0.1	0.0	0.9	-7.0	0.0	0.0	0.5	0.5	-15.6	-12.4	0.3	0.0
434	40.8	0.2	0.0	6.0	-4.5	0.0	0.0	1.3	1.8	4.8	18.8	0.0	0.0
435	23.7	-0.4	0.0	9.5	0.0	0.0	0.0	1.7	1.2	28.5	36.4	-0.6	-0.5
436	27.5	0.0	-0.8	9.4	-0.9	0.0	0.0	1.4	2.8	16.9	36.5	0.1	-0.4
437	15.1	-0.8	-0.5	9.5	0.0	0.0	0.0	1.7	1.8	31.8	43.6	-0.5	-0.6
438	22.0	-0.3	0.0	8.5	-2.8	0.0	0.0	1.2	0.5	12.0	17.3	0.0	0.0
439	5.9	-0.1	0.0	7.6	0.0	0.0	0.0	1.2	0.7	34.9	37.7	-0.4	0.0
440	21.4	-0.3	0.0	10.6	-1.5	0.0	0.0	0.8	2.3	27.2	46.0	-0.3	0.0
441	17.1	-0.3	0.0	8.7	-0.7	0.0	0.0	1.0	1.1	25.6	32.2	-0.1	0.0
442	23.2	-0.2	0.0	3.6	-4.2	0.0	0.0	0.9	0.7	-3.0	2.0	0.6	0.0
443	8.5	-0.4	0.0	6.7	-3.2	0.0	0.0	0.8	0.8	9.6	14.8	-0.3	0.0
444	35.4	0.3	0.0	6.5	-1.6	0.0	0.0	1.0	2.6	11.4	33.2	0.1	-0.7
445	6.3	0.5	0.0	6.6	-1.4	0.0	0.0	0.4	1.9	11.8	25.8	0.0	0.0
446	27.9	0.1	0.0	7.6	-0.9	0.0	0.0	1.4	2.4	20.2	37.0	0.0	0.0
447	20.6	0.1	0.0	1.9	-2.6	0.0	0.0	1.0	0.5	-1.1	2.1	0.1	0.0
448	11.8	0.8	0.0	10.5	0.0	0.0	0.0	0.9	2.7	29.4	47.7	0.7	0.0
449	20.8	1.4	0.0	1.6	-16.5	0.0	0.0	-1.5	0.6	-43.0	-38.5	1.2	0.0
450	33.4	0.8	-0.5	9.3	0.0	0.0	0.0	0.5	2.0	29.3	44.1	1.2	-0.9
451	21.9	-0.4	0.0	7.7	0.0	0.0	0.0	1.0	2.0	21.5	33.9	0.3	0.0

	181	182	183	184	185	186	187	188	189	190	191	192	193	\
0	1.4	0.0	0.0	0.0	0.8	-0.6	-10.7	-15.6	0.4	-3.9	0.0	0.0	0.0	
1	0.9	0.0	0.0	0.0	-0.3	0.4	-1.5	1.3	0.1	-6.4	0.0	0.0	0.0	
2	4.4	0.0	0.0	0.0	0.5	0.2	24.7	26.2	-1.0	-5.3	1.8	0.0	0.0	
3	1.6	-2.2	0.0	0.0	-1.0	-0.9	-1.5	-9.2	-0.4	-8.2	1.8	0.0	0.0	
4	1.2	0.0	0.0	0.0	1.0	-0.6	-7.7	-13.4	-0.1	-3.4	0.8	0.0	0.0	
5	21.7	0.0	0.0	0.0	0.7	2.6	66.7	95.8	-0.2	-9.0	3.2	0.0	0.0	

6	5.9	-0.5	0.0	0.0	0.3	0.6	12.2	15.0	0.1	-4.6	0.6	0.0	0.0
7	4.4	-0.8	0.0	0.0	-0.3	-0.6	11.2	6.9	0.1	-6.3	1.3	0.0	0.0
8	3.0	-0.4	0.0	0.0	1.4	1.8	5.3	17.9	-0.7	-3.9	0.5	0.0	0.0
9	8.3	0.0	0.0	0.0	0.8	0.3	29.8	32.0	0.1	-6.1	1.1	0.0	0.0
10	1.6	0.0	0.0	0.0	1.0	1.1	8.3	16.6	0.1	-5.7	1.3	0.0	0.0
11	1.1	0.0	0.0	0.0	0.5	0.2	-1.7	-0.6	-0.1	-5.3	1.6	0.0	0.0
12	0.0	0.0	0.0	0.0	0.4	0.1	-14.0	-13.3	0.2	-5.2	0.6	0.0	0.0
13	13.1	0.0	0.0	0.0	0.4	0.6	21.6	25.5	-0.1	-8.0	0.0	0.0	0.0
14	4.2	0.0	0.0	0.0	0.7	-0.7	12.7	7.4	-0.1	-11.5	0.0	0.0	0.0
15	2.6	-1.8	0.0	0.0	0.8	0.6	1.6	6.0	0.0	-6.7	1.2	0.0	0.0
16	7.5	-1.2	0.0	0.0	1.2	2.0	17.4	32.6	0.2	-6.0	1.1	0.0	0.0
17	3.0	-0.4	0.0	0.0	-0.2	0.2	6.4	7.3	0.0	-4.6	0.4	0.0	0.0
18	3.3	0.0	0.0	0.0	0.6	-1.0	11.4	3.0	-0.2	-2.9	0.0	0.0	0.0
19	0.5	-6.6	0.0	0.0	0.4	-0.1	-23.2	-23.7	0.1	-6.4	0.9	0.0	0.0
20	2.6	-1.1	0.0	0.0	0.3	0.7	5.2	12.2	-0.6	-6.3	1.0	0.0	0.0
21	6.4	-1.5	0.0	0.0	1.1	1.3	16.8	23.8	-0.1	-5.2	1.0	0.0	0.0
22	5.0	0.0	0.0	0.0	0.3	0.8	13.7	18.1	-0.1	-6.3	0.0	0.0	0.0
23	1.4	-4.1	0.0	0.0	0.4	-0.4	-8.7	-11.1	-0.1	-4.8	0.0	0.0	0.0
24	6.5	-1.9	0.0	0.0	0.7	-0.5	9.5	6.6	0.1	-7.8	0.0	0.0	0.0
25	1.8	-10.9	0.0	0.0	0.4	2.4	-38.9	-14.5	0.5	-5.6	0.0	0.0	0.0
26	8.2	0.0	0.0	0.0	0.9	0.9	28.7	33.7	-0.2	0.0	0.4	-5.2	1.2
27	2.4	-3.6	0.0	0.0	0.2	1.1	-7.0	1.8	-0.1	-8.6	1.9	0.0	0.0
28	0.4	-6.3	0.0	0.0	0.3	0.4	-19.8	-13.9	0.7	-7.5	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	-0.7	1.1	-44.5	-27.8	0.9	-8.0	3.0	0.0	0.0
..	...	...	...	...	...	...	...	...	...	...	...	...	...
422	8.8	-2.8	0.0	0.0	0.6	1.2	15.5	22.2	-0.1	-8.3	1.6	0.0	0.0
423	0.0	0.0	0.0	0.0	0.9	1.1	-7.9	2.2	-0.3	-4.2	1.1	0.0	0.0
424	3.7	-12.5	0.0	0.0	-0.2	7.1	-27.9	53.0	-0.9	-4.1	2.8	0.0	0.0
425	2.2	0.0	0.0	0.0	0.4	-0.3	6.1	3.7	-0.1	-7.1	0.0	0.0	0.0
426	2.6	0.0	0.0	0.0	0.7	0.2	3.6	5.0	0.4	-5.7	0.0	0.0	0.0
427	2.1	-0.8	0.5	-1.2	0.4	-0.5	1.6	-2.4	0.1	0.0	0.4	-3.5	2.4
428	0.6	-1.5	0.0	0.0	0.2	0.7	-1.4	3.0	0.1	-4.8	0.0	0.0	0.0
429	5.7	0.0	0.0	0.0	-0.3	0.8	17.1	21.7	0.0	-8.5	2.2	0.0	0.0
430	16.8	0.0	0.0	0.0	-0.4	-1.9	35.2	13.2	-0.3	0.0	0.6	-7.4	2.5
431	1.3	0.0	0.0	0.0	0.5	0.4	4.6	6.6	0.3	-5.4	0.9	0.0	0.0
432	1.5	-4.3	0.0	0.0	0.8	1.3	-8.7	1.7	-0.6	-5.6	3.1	0.0	0.0
433	0.8	-10.0	0.0	0.0	0.1	0.8	-25.2	-19.8	0.1	-1.2	2.3	0.0	0.0
434	0.8	-7.1	0.0	0.0	1.0	-0.6	-23.0	-27.6	-0.4	-6.3	1.0	0.0	0.0
435	3.6	0.0	0.0	0.0	1.2	0.3	8.7	10.9	0.1	-7.8	0.0	0.0	0.0
436	1.8	-2.3	0.0	0.0	1.2	1.1	-1.2	6.5	-0.2	0.0	0.5	-8.8	0.0
437	5.0	0.0	0.0	0.0	0.8	0.7	15.4	18.4	0.0	-8.1	0.0	0.0	0.0
438	1.0	-4.4	0.0	0.0	0.4	0.2	-11.2	-8.5	0.3	-8.3	1.2	0.0	0.0
439	7.6	0.0	0.0	0.0	0.7	-1.2	30.4	22.8	0.1	-4.8	0.0	0.0	0.0
440	5.5	-1.0	0.0	0.0	0.4	0.8	14.9	19.5	0.4	-7.8	1.1	0.0	0.0
441	5.1	0.0	0.0	0.0	0.4	-0.5	18.3	15.2	0.2	-6.3	0.8	0.0	0.0
442	2.4	-8.6	0.0	0.0	0.4	-1.1	-16.8	-24.7	0.3	-4.9	2.0	0.0	0.0
443	3.6	-1.4	0.0	0.0	0.4	0.3	5.8	7.9	-0.4	-4.8	2.3	0.0	0.0
444	1.0	-1.2	0.0	0.0	0.1	-0.2	-1.5	-3.1	-0.2	-6.0	1.1	0.0	0.0

445	4.7	0.0	0.0	0.0	0.1	1.3	16.9	26.5	0.3	-4.0	1.5	0.0	0.0
446	1.4	-0.5	0.0	0.0	1.0	0.5	3.0	5.3	0.0	-6.9	0.8	0.0	0.0
447	0.5	-6.7	0.0	0.0	0.3	-0.4	-15.4	-17.8	0.1	-3.5	1.1	0.0	0.0
448	7.8	0.0	0.0	0.0	0.3	1.6	29.6	40.4	0.0	-6.6	1.1	0.0	0.0
449	1.5	-16.3	0.0	0.0	-2.8	-1.8	-46.8	-58.6	-0.8	-3.8	10.6	0.0	0.0
450	4.2	0.0	0.0	0.0	-1.1	0.2	11.9	13.7	-0.4	-7.5	0.0	0.0	0.0
451	0.9	-2.8	1.3	0.0	0.4	1.6	-2.3	7.6	0.2	-9.0	1.0	0.0	0.0

	194	195	196	197	198	199	200	201	202	203	204	205	206	\
0	0.0	-0.8	-1.7	-10.1	-22.0	0.0	0.0	5.7	-1.0	0.0	0.0	-0.1	1.2	
1	0.0	-0.3	-1.6	-15.3	-25.5	-0.3	0.0	4.2	-0.9	0.0	0.0	0.4	0.7	
2	0.0	-0.5	-2.5	-8.0	-28.5	0.5	0.0	1.7	-2.7	0.0	0.0	-0.2	1.0	
3	0.0	-0.7	-1.7	-23.4	-35.6	0.9	0.0	3.2	-0.4	0.0	0.0	0.7	1.2	
4	0.0	-1.4	-1.5	-7.0	-17.8	-0.1	0.0	4.4	-1.3	0.0	0.0	-0.1	1.1	
5	0.0	-1.1	-2.9	-14.1	-39.0	0.5	0.0	1.8	-12.9	0.0	0.0	0.4	-0.4	
6	0.0	-0.4	-0.9	-9.7	-14.7	0.2	-2.1	0.0	0.0	0.0	0.0	-0.3	0.4	
7	0.0	-0.6	-0.8	-13.1	-17.9	0.1	-0.8	0.0	0.0	0.0	0.0	0.6	0.7	
8	0.0	-1.1	-1.9	-7.5	-20.4	-0.5	0.0	0.0	0.0	0.0	0.0	-0.6	-0.5	
9	0.0	-0.6	-1.2	-15.5	-24.1	0.0	0.0	0.6	-4.1	0.0	0.0	-0.1	0.8	
10	0.0	-1.0	-1.0	-9.1	-15.5	-0.5	-0.6	1.5	-1.9	0.0	0.0	-0.4	-0.2	
11	0.0	-1.1	-1.8	-8.4	-23.1	0.1	0.0	4.6	-0.9	0.0	0.0	0.3	0.7	
12	0.0	-1.1	-0.6	-10.4	-14.6	0.0	0.0	5.1	0.0	0.0	0.0	0.6	0.1	
13	0.0	-0.6	-1.4	-22.4	-31.0	0.1	0.0	2.3	-5.7	0.0	0.0	-0.1	0.2	
14	0.0	-0.9	-2.0	-46.0	-59.2	-0.2	0.0	3.3	-0.9	0.0	0.0	0.7	1.0	
15	0.0	-0.9	-1.8	-11.5	-24.8	-0.1	0.0	1.7	0.0	0.0	0.0	0.1	0.5	
16	0.0	-0.9	-1.6	-13.9	-26.3	0.0	-2.6	0.4	0.0	0.0	0.0	-0.4	-0.7	
17	0.0	-0.4	-0.6	-10.7	-14.1	-0.5	0.0	0.8	0.0	0.0	0.0	0.3	0.1	
18	0.0	-0.7	-0.4	-11.0	-13.3	-0.3	0.0	0.9	-2.0	0.0	0.0	-0.2	0.8	
19	0.0	-1.1	-1.7	-20.8	-33.3	-0.1	0.0	7.9	0.0	0.0	0.0	-0.1	0.8	
20	0.0	-0.7	-2.9	-13.9	-40.0	0.2	-0.4	1.2	0.0	0.0	0.0	0.2	1.1	
21	0.0	-1.1	-1.1	-12.3	-18.6	0.5	-3.4	0.0	0.0	0.0	0.0	-0.1	-0.4	
22	0.0	-1.0	-1.3	-22.6	-30.4	0.1	0.0	2.0	-2.3	0.0	0.0	0.3	0.2	
23	0.0	-0.5	-0.9	-18.2	-22.8	0.3	-0.5	4.5	0.0	0.0	0.0	-0.1	0.6	
24	0.0	0.1	-1.6	-24.9	-35.4	-0.1	-1.0	1.5	0.0	0.0	0.0	-0.4	1.1	
25	0.0	0.2	-1.0	-21.2	-31.4	-0.9	-1.1	8.6	0.0	0.0	0.0	-0.2	-1.8	
26	0.0	-1.4	-1.7	-10.3	-22.2	0.0	0.0	0.9	-3.7	0.0	0.0	0.1	0.4	
27	0.0	-0.6	-2.2	-16.1	-33.2	0.3	0.0	2.8	0.0	0.0	0.0	0.4	0.8	
28	0.0	-0.9	-0.1	-27.0	-29.0	-0.9	0.0	9.1	0.0	0.0	0.0	0.5	-1.2	
29	0.0	-0.5	1.2	-12.0	6.7	-1.4	0.0	11.2	0.0	0.0	0.0	0.4	-1.4	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	0.0	-0.5	-2.2	-21.3	-36.7	0.0	-2.5	1.1	0.0	0.0	0.0	-0.3	0.5	
423	0.0	-1.2	-1.7	-8.1	-23.7	0.1	0.0	2.3	0.0	0.0	0.0	-0.2	0.3	
424	0.0	-1.3	-3.7	-10.5	-50.4	-1.5	-0.8	7.8	0.0	0.0	0.0	0.5	-3.5	
425	0.0	-1.1	-2.3	-22.7	-39.7	-0.4	0.0	1.7	0.0	0.0	0.0	-0.1	1.2	
426	0.0	-0.7	-1.5	-13.6	-22.3	0.5	0.0	1.7	0.0	0.0	0.0	-0.2	0.7	
427	0.0	-0.6	-0.9	4.7	-1.2	0.0	0.0	1.4	-0.9	0.0	0.0	-0.2	0.8	
428	0.0	0.0	-0.3	-17.2	-19.3	-0.4	-0.4	2.4	0.0	0.0	0.0	0.0	-0.2	
429	0.0	-1.0	-1.5	-14.3	-23.9	0.0	0.0	1.0	-5.4	0.0	0.0	0.4	0.2	

430	0.0	-0.8	-1.2	-5.4	-19.0	1.2	0.0	4.1	-9.5	0.0	0.0	0.7	1.5
431	0.0	-0.7	-1.1	-12.8	-20.0	0.0	0.0	2.1	-1.0	0.0	0.0	-0.1	0.3
432	0.0	-0.8	-2.7	-6.3	-26.8	0.1	0.0	2.3	0.0	0.0	0.0	-0.2	0.4
433	0.0	-0.6	-0.2	4.3	3.3	-0.2	-0.4	6.8	0.0	0.0	0.0	0.6	-0.5
434	0.0	-0.9	-1.8	-11.6	-25.2	0.2	-0.5	5.2	0.0	0.0	0.0	-0.3	1.2
435	0.0	-1.1	-1.0	-28.0	-34.4	0.3	0.0	1.3	-1.1	0.0	0.0	-0.3	0.6
436	0.0	-0.9	-2.2	-18.8	-34.2	-0.1	0.0	3.7	0.0	0.0	0.0	-0.5	0.2
437	0.0	-1.3	-1.7	-35.6	-45.8	0.2	0.0	1.1	-2.2	0.0	0.0	0.2	0.4
438	0.0	-0.6	0.5	-17.8	-10.2	0.0	-0.7	5.2	0.0	0.0	0.0	-0.1	-0.4
439	0.0	-0.8	-1.0	-14.4	-19.8	0.2	0.0	1.1	-4.6	0.0	0.0	-0.2	1.1
440	0.0	-0.7	-1.9	-17.6	-32.4	0.5	-0.6	0.0	0.0	0.0	0.0	-0.1	0.6
441	0.0	-0.8	-1.2	-15.5	-22.7	-0.7	0.0	0.5	0.0	0.0	0.0	0.3	0.9
442	0.0	-0.7	-1.0	-5.4	-12.2	-0.6	-1.4	7.9	0.0	0.0	0.0	-0.2	1.4
443	0.0	-0.6	-0.5	-8.3	-10.5	0.7	0.0	0.0	0.0	0.0	0.0	0.4	0.3
444	0.0	-0.9	-2.5	-10.9	-31.4	-0.4	0.0	2.2	0.0	0.0	0.0	0.6	1.3
445	0.0	-0.6	-1.5	-4.6	-15.7	-0.7	-2.6	0.0	0.0	0.0	0.0	0.5	-0.3
446	0.0	-0.8	-2.0	-17.0	-30.6	-0.2	-0.5	2.1	0.0	0.0	0.0	-0.3	0.6
447	0.0	-0.9	-0.7	-5.1	-10.4	-0.2	0.0	6.3	0.0	0.0	0.0	0.4	0.6
448	0.0	-0.5	-1.7	-14.3	-27.9	-0.9	-3.8	0.0	0.0	0.0	0.0	0.1	-0.3
449	0.0	-0.1	-1.1	18.6	10.5	-0.5	-1.0	10.9	-1.3	0.0	0.0	2.0	1.9
450	0.0	-0.6	-2.1	-27.0	-43.8	-0.5	0.0	1.2	0.0	0.0	0.0	0.7	1.2
451	0.0	-0.8	-1.2	-20.2	-27.1	-0.3	-0.6	6.4	-1.5	0.0	0.0	0.2	-0.7

	207	208	209	210	211	212	213	214	215	216	217	218	219	\
0	14.1	22.5	0.0	-2.5	0.8	0.0	0.0	0.0	1.0	0.4	-4.8	-2.7	0.1	
1	8.3	12.3	0.2	0.0	2.2	0.0	0.0	0.0	-0.2	0.8	6.6	11.7	0.4	
2	-9.4	-1.2	0.4	0.0	4.9	0.0	0.0	0.0	0.6	1.4	31.3	42.7	-0.8	
3	9.4	18.0	-0.1	0.0	5.1	-2.5	0.0	0.0	0.3	0.6	9.8	12.6	1.6	
4	8.2	16.5	0.6	-1.6	0.0	0.0	0.0	0.0	1.4	0.3	-3.5	-1.9	0.0	
5	-38.7	-42.1	-0.1	-1.6	19.9	-0.7	0.0	0.0	1.0	3.3	40.4	65.4	0.4	
6	-3.7	-1.4	-0.2	0.0	6.8	-0.9	0.0	0.0	0.7	0.7	14.2	17.1	1.3	
7	-2.0	2.9	-0.2	0.0	6.3	-1.2	0.0	0.0	0.2	0.3	14.7	16.8	0.7	
8	0.0	-3.4	1.1	0.0	4.2	-0.5	0.0	0.0	1.6	2.3	7.2	22.8	0.5	
9	-10.6	-4.9	-0.2	0.0	8.9	0.0	0.0	0.0	0.8	0.7	26.7	30.2	0.1	
10	-2.8	-4.1	0.4	0.0	4.4	0.0	0.0	0.0	1.3	1.0	18.4	25.2	0.7	
11	8.0	13.7	0.1	-0.5	1.3	-0.7	0.0	0.0	0.8	1.2	0.7	10.5	0.1	
12	21.4	22.3	-0.2	-2.9	0.0	0.0	0.0	0.0	0.7	0.4	-10.4	-7.5	0.6	
13	-5.6	-4.5	-0.1	-1.9	13.9	0.0	0.0	0.0	0.6	1.1	27.5	34.3	0.8	
14	4.3	9.9	0.4	0.0	8.4	0.0	0.0	0.0	0.5	1.0	33.6	41.4	0.6	
15	5.1	8.8	0.0	0.0	5.3	-1.9	0.0	0.0	0.8	1.4	7.2	17.5	1.2	
16	-5.6	-10.0	-0.1	0.0	8.6	-1.5	0.0	0.0	1.3	2.2	19.9	36.1	1.3	
17	0.9	1.4	0.4	0.0	4.4	0.0	0.0	0.0	0.1	0.4	10.5	12.6	0.6	
18	-2.4	2.4	0.5	0.0	3.2	0.0	0.0	0.0	0.7	-0.4	10.8	8.2	1.4	
19	22.1	28.0	-0.2	0.0	0.6	-2.3	0.0	0.0	0.8	0.8	-6.6	-1.0	0.4	
20	4.3	14.2	0.2	0.0	5.3	-1.2	0.0	0.0	0.5	1.8	11.3	26.7	0.0	
21	-7.4	-9.3	-0.2	0.0	7.2	-1.2	0.0	0.0	1.1	1.4	18.5	26.6	0.7	
22	-0.8	0.4	0.2	0.0	6.0	0.0	0.0	0.0	0.7	1.2	21.6	28.8	0.4	
23	12.1	15.4	-0.2	0.0	2.6	-2.4	0.0	0.0	0.6	0.2	0.4	1.2	0.5	

24	0.7	7.9	-0.1	0.0	8.9	-1.3	0.0	0.0	0.7	0.6	21.6	24.7	0.4
25	31.3	13.0	0.5	0.0	1.7	-7.8	0.0	0.0	0.4	2.0	-19.7	0.7	2.9
26	-11.5	-9.7	0.1	-0.4	8.8	0.0	0.0	0.0	1.2	1.5	20.7	31.2	0.5
27	14.0	20.2	-0.2	0.0	6.6	-2.8	0.0	0.0	0.4	1.5	3.4	15.1	1.3
28	30.9	7.7	0.1	0.0	0.7	-2.5	0.0	0.0	0.6	-0.6	-6.7	-18.9	0.9
29	35.8	14.0	0.4	-5.5	0.0	0.0	0.0	0.0	0.3	0.5	-24.2	-16.4	1.1
..	...	...	...	...	...	...	...	...	...	...	...	...	...
422	-1.8	1.7	0.0	0.0	10.9	-2.8	0.0	0.0	0.6	2.0	23.3	35.7	0.4
423	8.7	11.3	-0.1	0.0	2.4	-3.0	0.0	0.0	1.2	1.6	-2.8	11.9	0.0
424	24.1	-14.4	2.5	0.0	4.9	-10.7	0.0	0.0	0.8	7.0	-14.3	62.7	2.5
425	3.7	12.5	0.6	0.0	5.4	0.0	0.0	0.0	0.9	1.0	17.2	24.6	1.4
426	5.4	10.1	-0.9	0.0	4.8	0.0	0.0	0.0	0.9	0.9	9.6	14.1	0.4
427	-1.9	3.5	-0.2	-0.6	3.2	-2.1	0.0	0.0	0.6	0.4	-4.8	-2.1	0.1
428	6.4	5.0	0.0	0.0	2.7	-0.4	0.4	0.0	0.0	0.4	6.5	9.3	0.7
429	-11.3	-10.1	0.1	0.0	7.4	-0.4	0.0	0.0	-0.1	1.4	23.5	32.4	1.2
430	-23.9	-6.8	-0.8	-3.9	16.1	-1.8	0.0	0.0	0.4	-1.2	14.6	3.8	-1.4
431	2.3	4.2	-0.4	0.0	3.7	0.0	0.0	0.0	0.7	0.9	12.5	18.2	0.7
432	9.2	12.2	0.4	0.0	3.7	-4.8	0.0	0.0	1.0	2.3	-3.9	13.5	-0.5
433	17.3	14.8	0.1	0.0	0.7	-8.5	0.0	0.0	0.3	0.6	-19.6	-16.2	0.1
434	20.4	29.5	0.0	0.0	2.7	-5.8	0.0	0.0	1.1	0.8	-9.6	-5.3	1.9
435	1.8	5.6	-0.5	-0.4	6.4	0.0	0.0	0.0	1.4	0.5	17.6	19.8	0.8
436	10.3	11.7	0.1	-0.4	5.6	-1.2	0.0	0.0	1.3	2.0	8.9	22.9	0.5
437	-2.6	-0.2	-0.3	0.0	7.3	0.0	0.0	0.0	1.3	1.2	27.7	34.9	0.9
438	19.0	12.6	-0.2	0.0	4.4	-3.3	0.0	0.0	0.5	-0.1	1.7	0.3	0.9
439	-14.3	-7.5	-0.1	0.0	7.2	0.0	0.0	0.0	0.9	0.2	33.1	34.3	0.6
440	-0.7	3.9	-1.3	0.0	8.0	0.0	0.0	0.0	0.6	1.5	22.4	32.3	0.6
441	0.4	5.8	-0.4	0.0	6.8	0.0	0.0	0.0	0.7	0.4	19.0	20.7	0.3
442	17.3	26.8	0.2	0.0	2.4	-5.7	0.0	0.0	0.6	-0.3	-9.3	-10.7	0.6
443	0.0	1.6	-0.1	0.0	5.0	-2.6	0.0	0.0	0.5	0.3	6.8	7.9	0.3
444	5.7	16.3	0.1	0.0	4.0	-1.1	0.0	0.0	0.5	1.2	5.3	14.6	0.7
445	-6.7	-8.2	0.2	0.0	6.0	0.0	0.0	0.0	0.4	1.6	12.0	22.8	0.4
446	3.7	7.7	0.1	0.0	4.8	-0.6	0.0	0.0	1.0	1.4	12.8	22.3	0.2
447	16.3	21.1	-0.1	0.0	0.4	-4.4	0.0	0.0	0.5	0.1	-11.9	-11.3	0.6
448	-12.1	-14.5	0.8	0.0	9.6	0.0	0.0	0.0	0.5	1.9	36.4	49.3	1.0
449	24.5	38.1	1.4	0.0	1.4	-15.4	0.0	0.0	-2.1	-0.9	-44.0	-49.4	-1.8
450	3.8	14.6	1.0	-0.5	6.6	0.0	0.0	0.0	-0.9	0.9	20.8	26.9	1.0
451	8.8	4.5	0.1	0.0	2.6	0.0	0.0	0.0	0.7	1.8	10.9	22.0	0.4

	220	221	222	223	224	225	226	227	228	229	230	231	232	\
0	-6.0	0.0	0.0	0.0	0.0	-0.8	-0.6	-24.0	-29.7	0.0	0.0	2.0	-6.4	
1	0.0	1.0	-8.8	0.0	0.0	0.5	-0.6	-21.6	-26.8	0.4	0.0	2.6	-7.9	
2	0.0	0.7	-3.8	6.5	0.0	0.3	-3.3	18.7	-13.6	-0.9	0.0	2.2	-4.1	
3	-6.5	0.0	0.0	0.0	0.0	-0.4	-0.4	-18.2	-22.4	2.1	0.0	1.2	-6.9	
4	-5.7	0.0	0.0	0.0	0.0	-0.4	-0.5	-25.0	-30.0	-0.2	0.0	1.6	-6.0	
5	0.0	6.7	-24.4	0.0	0.0	-1.2	0.4	-61.2	-59.9	0.9	-0.5	11.9	-43.3	
6	0.0	1.3	-11.5	0.0	0.0	-0.3	1.7	-30.9	-13.9	1.7	0.0	2.3	-17.5	
7	0.0	0.5	-7.3	0.0	0.0	0.2	-0.1	-15.5	-16.4	0.9	0.0	0.7	-8.9	
8	0.0	0.9	-5.5	0.0	0.0	-0.7	1.0	-14.5	-5.3	0.7	0.0	1.2	-6.4	

9	0.0	1.3	-5.4	1.9	0.0	0.2	0.8	-5.2	2.1	0.8	0.0	4.4	-8.5
10	0.0	0.6	-8.5	0.0	0.0	-0.1	-1.4	-26.5	-39.9	0.1	-0.8	2.0	-12.9
11	0.0	0.6	-4.4	0.0	0.0	-0.4	-1.8	-9.0	-27.3	0.1	0.0	3.3	-6.7
12	0.0	0.5	-5.4	1.3	0.0	-0.8	-0.4	-7.3	-11.4	1.0	0.0	2.3	-3.7
13	0.0	3.3	-7.4	0.0	0.0	0.2	-0.4	-9.0	-12.3	2.8	0.0	8.9	-8.0
14	0.0	3.4	-10.4	0.0	0.0	-0.8	-0.3	-20.2	-23.2	1.2	0.0	5.6	-5.3
15	0.0	1.4	-13.7	0.0	0.0	-0.9	0.5	-28.7	-21.8	1.6	0.0	2.5	-11.9
16	0.0	0.5	-8.7	1.8	0.0	-0.6	-0.4	-18.6	-22.2	2.4	0.0	0.8	-9.7
17	-10.4	0.0	0.0	0.0	0.0	0.2	0.5	-31.2	-24.4	0.1	-6.7	0.0	0.0
18	-9.1	0.0	0.0	0.0	0.0	-0.2	2.8	-32.7	-2.5	2.1	0.0	0.8	-13.3
19	-4.2	1.0	0.0	0.0	0.0	-0.6	-0.7	-11.6	-17.0	0.3	0.0	4.9	-2.5
20	0.0	2.1	-6.5	0.0	0.0	0.2	-2.0	-19.6	-41.2	0.6	0.0	4.9	-7.1
21	0.0	2.0	-4.3	0.0	0.0	-0.5	0.7	-6.2	-0.5	1.1	0.0	6.8	-9.7
22	0.0	1.6	-5.0	0.0	0.0	-0.6	0.7	-7.5	-1.8	1.2	0.0	5.4	-7.1
23	0.0	2.0	-7.7	0.0	0.0	0.3	-0.9	-20.3	-28.5	1.0	0.0	6.0	-10.6
24	0.0	1.0	-10.4	0.0	0.0	0.0	-1.6	-23.7	-43.8	1.0	0.0	2.0	-10.7
25	-18.3	0.0	0.0	0.0	0.0	0.8	5.4	-69.5	-8.0	1.9	0.0	3.4	-16.7
26	0.0	1.1	-9.0	1.1	0.0	-2.1	0.6	-18.4	-12.4	1.7	0.0	1.8	-11.8
27	0.0	1.2	-11.9	2.3	0.0	0.1	-2.2	-18.8	-38.6	1.2	0.0	2.6	-7.8
28	-7.3	0.0	0.0	0.0	0.0	-0.6	2.0	-27.7	-4.9	0.5	-4.7	0.0	0.0
29	0.0	0.6	-13.2	0.0	0.0	-0.5	1.8	-33.7	-5.7	0.4	0.0	0.9	-8.8
..	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0.0	1.0	-9.8	0.0	0.0	0.5	-1.2	-24.2	-36.4	0.9	0.0	3.2	-12.3
423	-3.8	0.0	0.0	0.0	0.0	-0.7	0.2	-14.4	-12.7	0.5	0.0	2.3	-7.6
424	0.0	0.7	-20.2	0.0	0.0	-1.2	-1.0	-92.2	-107.2	5.7	0.0	3.8	-39.2
425	0.0	1.8	-11.7	0.0	0.0	-0.7	-0.1	-29.9	-31.0	3.0	0.0	3.0	-12.0
426	0.0	0.9	-7.7	0.0	0.0	-0.6	-0.8	-15.9	-24.0	1.1	0.0	2.3	-8.7
427	0.0	1.2	-4.3	5.8	0.0	0.6	-1.8	17.1	-7.0	1.5	0.0	2.8	-9.1
428	0.0	0.7	-9.1	0.0	0.0	-0.6	1.2	-28.4	-14.0	0.5	0.0	1.0	-6.9
429	0.0	1.0	-3.7	8.0	0.0	-0.4	1.4	18.1	29.8	1.4	0.0	4.1	-4.8
430	0.0	4.5	-8.7	4.8	0.0	1.1	-4.6	10.2	-45.9	0.0	0.0	11.5	-14.1
431	0.0	1.4	-7.5	0.0	0.0	-0.4	-0.1	-17.6	-18.6	0.7	0.0	4.2	-10.6
432	0.0	0.6	-5.1	0.0	0.0	-1.0	-2.5	-7.5	-35.5	0.2	0.0	2.0	-3.8
433	-3.9	0.0	0.0	0.0	0.0	-1.3	-0.1	-10.1	-11.1	0.1	-4.5	0.0	0.0
434	0.0	2.0	-15.6	0.0	0.0	-0.6	1.3	-44.0	-26.4	3.3	0.0	2.6	-15.4
435	0.0	0.7	-6.5	0.0	0.0	0.2	-0.5	-16.1	-21.0	1.4	0.0	3.7	-7.0
436	0.0	3.0	-14.8	0.0	0.0	-0.9	-1.5	-31.3	-42.4	1.0	0.0	3.4	-4.3
437	0.0	0.7	-7.4	0.0	0.0	-0.3	-0.9	-21.5	-31.7	1.6	0.0	2.6	-13.5
438	0.0	1.7	-10.6	0.0	0.0	-0.2	1.2	-18.9	-8.1	0.8	0.0	2.3	-6.0
439	0.0	1.1	-5.2	0.0	0.0	-0.6	-1.5	-10.1	-23.9	0.8	0.0	3.4	-10.2
440	0.0	2.0	-9.5	0.0	0.0	-0.7	-0.7	-25.7	-32.4	0.8	0.0	4.4	-9.3
441	0.0	2.0	-10.2	0.0	0.0	0.4	-0.6	-25.3	-30.8	0.7	0.0	3.3	-12.5
442	0.0	0.7	-1.7	0.0	0.0	-0.4	-0.5	-3.2	-10.6	1.0	0.0	4.2	-1.8
443	0.0	2.0	-1.4	2.4	0.0	0.3	0.2	7.4	8.9	0.1	0.0	3.9	-1.4
444	0.0	0.4	-8.7	0.0	0.0	0.1	0.2	-22.2	-19.8	2.4	0.0	2.4	-13.0
445	0.0	1.8	-5.3	0.0	0.0	0.3	1.5	-13.1	-0.2	0.5	0.0	1.9	-8.1
446	0.0	0.8	-7.8	0.0	0.0	0.0	-1.3	-22.6	-34.8	1.1	0.0	1.9	-7.4
447	-6.2	0.0	0.0	0.0	0.0	-0.1	-0.1	-18.6	-19.7	1.0	0.0	0.5	-8.2

448	-4.5	2.6	0.0	0.0	0.0	-0.4	2.6	-5.3	21.2	1.7	0.0	3.3	-8.9
449	0.0	0.5	-1.4	12.6	-2.9	1.8	-2.8	23.1	-0.9	-4.1	0.0	19.4	-6.1
450	0.0	2.2	-12.2	0.0	0.0	0.7	1.0	-28.7	-16.3	2.0	0.0	7.8	-14.0
451	0.0	2.0	-3.3	0.0	0.0	0.2	1.1	-3.8	4.7	-0.4	0.0	11.6	-6.0

	233	234	235	236	237	238	239	240	241	242	243	244	245	\
0	0.0	0.0	0.2	2.9	-12.6	15.2	-0.1	0.0	8.4	-10.0	0.0	0.0	0.6	
1	0.0	0.0	0.8	2.0	-16.4	1.2	0.0	0.0	5.8	-7.7	0.0	0.0	0.9	
2	7.4	0.0	0.5	-2.4	20.9	-2.6	0.0	0.0	5.8	-4.1	4.0	-0.5	0.4	
3	0.0	0.0	-0.5	2.9	-12.7	18.0	0.7	0.0	9.0	-7.9	0.0	0.0	0.1	
4	0.0	0.0	-0.7	2.1	-12.4	8.6	-0.5	0.0	8.5	-10.2	0.0	0.0	-1.0	
5	0.0	0.0	0.8	3.4	-111.4	-95.1	2.0	-0.8	19.8	-48.4	0.0	0.0	1.6	
6	0.0	0.0	-0.6	4.5	-46.3	-1.3	1.1	0.0	3.7	-11.0	0.0	0.0	-0.5	
7	0.0	0.0	0.6	2.5	-20.5	4.0	0.8	0.0	2.1	-9.0	0.0	0.0	0.6	
8	0.0	0.0	-0.5	2.6	-13.9	10.0	1.5	0.0	2.4	-10.3	0.0	0.0	0.3	
9	0.0	0.0	0.8	3.9	-10.8	25.0	0.4	0.0	4.3	-7.3	0.0	0.0	1.1	
10	0.0	0.0	-0.2	-2.7	-35.3	-54.7	-0.9	-2.5	11.9	-18.6	0.0	0.0	-0.2	
11	0.0	0.0	0.2	-0.9	-10.1	-17.4	0.0	0.0	6.5	-9.1	0.0	0.0	0.5	
12	0.0	0.0	0.1	0.6	-1.8	4.4	-0.1	0.0	5.1	-5.8	0.0	0.0	0.5	
13	0.0	0.0	0.3	1.3	11.7	22.6	1.5	0.0	11.4	-3.7	0.0	0.0	0.5	
14	0.0	0.0	-0.5	3.4	0.5	35.1	0.8	0.0	8.3	-2.5	0.0	0.0	0.4	
15	0.0	0.0	-0.8	4.1	-22.6	33.9	1.5	0.0	5.9	-3.3	0.0	0.0	0.6	
16	3.0	0.0	-0.4	0.8	-19.4	-12.2	1.6	0.0	1.4	-11.8	0.0	0.0	0.4	
17	0.0	0.0	0.3	0.6	-20.1	-12.1	0.1	0.0	1.7	-4.1	0.0	0.0	0.5	
18	0.0	0.0	-0.1	6.1	-41.6	24.2	1.6	0.0	5.0	-17.3	0.0	0.0	0.2	
19	0.0	0.0	-0.2	1.6	7.7	20.1	0.0	0.0	14.4	-2.7	0.0	0.0	0.1	
20	0.0	0.0	-0.3	2.6	-8.2	19.8	0.7	0.0	7.0	-6.8	0.0	0.0	-0.5	
21	2.0	0.0	0.4	3.5	-1.4	33.6	1.9	0.0	14.1	-22.7	0.0	0.0	1.1	
22	0.0	0.0	-0.3	2.2	0.9	23.3	0.9	0.0	8.5	-7.0	0.0	0.0	0.0	
23	0.0	0.0	0.3	0.8	-13.7	-2.1	0.9	0.0	10.9	-10.2	0.0	0.0	0.6	
24	0.0	0.0	0.0	1.0	-20.7	-8.1	0.8	0.0	4.4	-8.1	0.0	0.0	0.0	
25	0.0	0.0	1.1	4.1	-50.0	-3.3	1.6	0.0	9.2	-22.7	0.0	0.0	1.4	
26	0.0	0.0	-1.6	2.7	-25.5	2.0	3.7	0.0	5.1	-14.5	0.0	0.0	1.4	
27	0.0	0.0	0.4	1.4	-12.5	0.1	-0.2	0.0	5.5	-3.6	0.0	0.0	0.6	
28	0.0	0.0	-0.2	2.2	-16.9	8.1	0.0	0.0	6.0	-7.2	0.0	0.0	-0.4	
29	0.0	0.0	0.2	1.3	-19.5	-0.3	-1.7	0.0	4.1	-6.6	0.0	0.0	0.2	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	0.0	0.0	0.5	2.2	-26.8	-5.7	0.1	0.0	5.2	-4.6	0.0	0.0	0.6	
423	0.0	0.0	-0.1	2.2	-15.6	5.0	0.6	0.0	5.3	-11.0	0.0	0.0	-0.3	
424	0.0	0.0	0.2	4.4	-151.5	-85.5	10.5	0.0	6.8	-46.3	0.0	0.0	0.6	
425	0.0	0.0	0.4	6.4	-21.0	50.6	2.1	0.0	3.6	-5.1	0.0	0.0	0.5	
426	0.0	0.0	0.1	2.1	-18.1	3.3	0.9	0.0	3.8	-4.8	0.0	0.0	0.1	
427	0.0	0.0	-0.5	1.3	-21.7	-3.8	1.9	0.0	9.0	-18.7	0.0	0.0	-0.9	
428	0.0	0.0	-0.4	0.9	-20.8	-10.0	0.3	0.0	2.9	-8.1	0.0	0.0	0.2	
429	0.0	0.0	0.7	2.3	-1.4	17.9	1.3	0.0	8.5	-3.3	0.0	0.0	0.6	
430	1.6	0.0	1.0	-5.2	4.4	-50.7	-0.7	0.0	14.4	-8.8	0.0	0.0	1.1	
431	0.0	0.0	-0.2	3.4	-20.8	13.2	0.4	0.0	6.6	-9.1	0.0	0.0	-0.3	
432	5.7	0.0	-0.8	-1.0	12.2	3.4	1.7	0.0	5.5	-9.5	0.0	0.0	-0.4	

433	0.0	0.0	-0.5	-0.6	-9.9	-12.6	0.0	-10.7	0.0	0.0	0.0	0.0	-0.4
434	0.0	0.0	-0.6	7.0	-31.2	64.0	3.3	0.0	3.5	-13.0	0.0	0.0	-0.9
435	0.0	0.0	0.3	1.4	-3.1	10.6	0.2	0.0	10.5	-7.0	0.0	0.0	0.5
436	0.0	0.0	0.2	2.9	-2.5	23.6	1.1	0.0	8.5	-2.0	0.0	0.0	0.5
437	0.0	0.0	-0.3	2.6	-37.4	-7.8	1.3	0.0	4.9	-13.0	0.0	0.0	-0.3
438	0.0	0.0	0.1	2.9	-7.9	18.2	0.5	0.0	4.8	-6.1	0.0	0.0	-0.1
439	0.0	0.0	0.2	1.1	-25.2	-15.1	0.3	0.0	7.3	-9.8	0.0	0.0	0.3
440	0.0	0.0	-0.2	3.3	-15.3	16.3	0.7	0.0	7.5	-10.2	0.0	0.0	0.3
441	0.0	0.0	0.4	3.6	-21.6	11.5	0.6	0.0	7.2	-2.3	0.0	0.0	0.6
442	0.0	0.0	0.5	0.7	6.6	16.9	0.6	0.0	7.1	-4.7	0.0	0.0	0.6
443	1.0	0.0	0.7	1.5	7.7	17.9	0.8	0.0	5.3	-6.9	0.0	0.0	1.0
444	0.0	0.0	0.1	6.3	-25.3	54.0	2.4	0.0	4.8	-4.7	0.0	0.0	0.4
445	0.0	0.0	0.5	2.6	-23.3	-1.0	0.8	0.0	3.3	-11.8	0.0	0.0	0.8
446	0.0	0.0	0.0	3.8	-13.6	22.1	0.7	0.0	8.7	-4.9	0.0	0.0	0.0
447	0.0	0.0	0.2	1.5	-22.5	-4.8	1.0	0.0	1.3	-9.2	0.0	0.0	-0.1
448	0.0	0.0	-0.4	8.8	-14.3	75.4	1.0	0.0	12.2	-5.4	0.0	0.0	-0.3
449	0.0	0.0	3.3	-7.0	72.9	12.7	-0.7	0.0	18.3	-34.1	0.0	0.0	1.4
450	0.0	0.0	0.5	6.5	-16.8	63.8	2.2	0.0	8.8	-7.7	0.0	0.0	0.9
451	0.0	0.0	0.4	2.6	13.5	33.7	-0.9	0.0	20.7	-6.3	0.0	0.0	0.4

	246	247	248	249	250	251	252	253	254	255	256	257	\
0	5.9	-3.9	52.7	-0.3	0.0	15.2	-8.4	0.0	0.0	0.9	5.1	17.7	
1	3.8	-5.7	27.7	-0.2	0.0	9.5	-5.0	0.0	0.0	0.5	2.6	11.8	
2	0.3	20.4	23.3	0.7	0.0	10.0	-5.7	0.0	0.0	0.5	2.2	-3.0	
3	4.1	7.6	51.0	0.4	0.0	15.0	-5.5	0.0	0.0	0.1	3.3	28.8	
4	4.7	-4.0	43.0	-0.2	0.0	15.2	-7.8	0.0	0.0	-0.1	4.9	16.2	
5	8.7	-114.5	-72.8	2.0	0.0	31.0	-25.7	0.0	0.0	0.8	5.9	29.2	
6	4.1	-19.8	21.2	0.1	0.0	7.7	-6.4	0.0	0.0	0.4	1.9	1.4	
7	3.8	-16.1	21.1	0.1	0.0	6.6	-4.1	0.0	0.0	0.3	1.4	4.7	
8	6.8	-19.3	43.2	0.8	0.0	7.9	-7.3	0.0	0.0	0.9	6.5	5.7	
9	4.0	-8.9	27.9	-0.5	0.0	7.0	-3.2	0.0	0.0	1.1	1.3	13.2	
10	-5.2	-34.7	-76.3	-1.4	-1.7	16.7	-13.3	0.0	0.0	0.9	-3.1	-12.5	
11	0.4	-8.8	-5.5	0.0	0.0	3.8	-5.6	0.0	0.0	0.5	0.3	-8.8	
12	1.0	-1.5	7.1	-0.2	0.0	8.2	-5.8	0.0	0.0	0.8	1.1	4.6	
13	4.8	23.0	63.3	0.0	0.0	20.6	-2.6	0.8	0.0	0.6	5.4	61.1	
14	3.3	19.0	52.6	0.2	0.0	12.7	-1.1	0.0	0.0	0.3	1.9	29.8	
15	7.0	10.8	107.4	0.1	0.0	9.6	-2.9	0.0	0.0	0.7	3.1	19.6	
16	4.4	-29.0	10.6	0.1	0.0	7.6	-3.4	0.0	0.0	0.4	4.7	16.5	
17	1.3	-6.3	11.3	-0.4	0.0	8.4	-2.9	0.0	0.0	0.4	0.9	14.3	
18	7.9	-34.9	50.4	0.1	0.0	11.0	-9.9	0.0	0.0	0.6	3.0	-1.5	
19	4.0	33.7	67.3	-0.6	0.0	18.8	-2.0	0.0	0.0	0.5	3.6	54.4	
20	5.7	6.0	67.5	0.1	0.0	11.5	-4.3	0.0	0.0	0.4	4.0	21.6	
21	7.1	-21.7	49.3	0.1	0.0	18.5	-17.6	0.0	0.0	1.2	2.9	-8.5	
22	3.0	8.9	39.5	0.2	0.0	8.9	-3.6	0.0	0.0	0.4	2.4	17.0	
23	1.3	-10.8	8.1	-0.3	0.0	10.9	-6.0	0.0	0.0	0.5	0.9	9.5	
24	2.9	-7.4	29.1	-0.1	0.0	12.6	-4.9	0.0	0.0	0.6	1.9	20.4	
25	6.3	-48.8	23.0	0.1	0.0	12.8	-15.6	0.0	0.0	0.6	3.4	-30.0	
26	8.4	-25.7	59.9	1.2	0.0	18.6	-5.7	0.0	0.0	1.0	7.4	45.2	

27	3.8	11.2	45.4	0.1	0.0	11.6	-3.2	0.0	0.0	0.3	3.3	19.5	
28	0.3	-4.3	-0.9	-0.4	0.0	9.3	-6.4	0.0	0.0	0.2	-1.7	2.5	
29	-1.6	-8.1	-33.0	-0.7	0.0	7.3	-7.4	0.0	0.0	0.2	-1.3	-9.1	
..	...	...	...	...	...	...	...	...	...	...	...	...	
422	2.9	7.2	32.7	-0.3	0.0	13.1	-4.1	0.0	0.0	0.6	2.6	31.1	
423	2.6	-14.8	7.5	-0.3	0.0	10.2	-10.1	0.0	0.0	0.9	1.8	-9.9	
424	10.7	-184.9	-24.4	6.7	0.0	5.9	-30.5	0.0	0.0	0.8	8.6	-124.8	
425	6.6	0.5	74.4	0.7	0.0	8.4	-4.1	0.0	0.0	0.5	4.5	13.5	
426	4.9	-2.8	47.1	0.7	0.0	11.8	-4.5	0.5	-0.4	0.4	5.1	23.2	
427	2.4	-56.9	-23.8	1.5	0.0	15.8	-15.4	0.0	0.0	0.7	1.7	-26.9	
428	0.9	-19.7	-8.9	-0.3	0.0	9.2	-5.4	0.0	0.0	0.4	0.7	8.0	
429	2.3	24.6	43.9	-0.7	0.0	12.4	-2.5	0.0	0.0	1.2	-4.8	37.1	
430	-5.9	-16.3	-88.2	-0.6	0.0	17.0	-7.4	0.0	0.0	0.1	0.8	17.6	
431	5.0	-2.4	47.6	-1.0	0.0	20.4	-7.0	0.0	0.0	0.5	2.5	34.9	
432	2.1	-10.2	13.3	1.8	0.0	11.1	-14.3	0.0	0.0	0.2	6.5	-6.4	
433	0.8	-32.1	-24.1	-0.3	0.0	1.7	-8.8	0.0	0.0	0.5	-0.4	-24.1	
434	6.4	-19.5	67.5	1.9	0.0	9.4	-9.0	0.0	0.0	0.5	-0.8	4.4	
435	2.2	17.5	38.6	-0.2	0.0	10.8	-2.6	0.0	0.0	0.8	1.3	23.4	
436	5.1	18.8	64.7	0.0	0.0	13.7	-2.4	0.5	0.0	0.6	4.2	28.1	
437	3.6	-28.6	12.4	-0.4	0.0	8.3	-4.8	0.0	0.0	1.0	1.1	5.1	
438	5.2	-0.4	46.4	-0.5	0.0	14.7	-5.5	0.0	0.0	0.8	3.4	23.1	
439	3.1	-9.0	19.5	-0.7	0.0	10.9	-5.7	0.0	0.0	0.7	2.4	8.0	
440	6.5	-10.9	51.5	-0.7	0.0	16.4	-8.9	0.0	0.0	0.8	4.4	24.6	
441	4.9	18.9	63.9	0.0	0.0	17.6	-2.5	0.0	0.0	0.7	2.9	57.3	
442	1.1	10.5	24.5	0.1	0.0	5.7	-5.5	0.0	0.0	0.7	0.9	2.6	
443	3.0	-4.9	18.5	0.6	0.0	6.8	-7.0	0.0	0.0	1.0	3.5	5.0	
444	7.7	2.1	99.1	0.4	0.0	7.4	-3.5	0.0	0.0	0.8	3.7	12.0	
445	4.7	-27.8	12.6	0.1	0.0	5.6	-9.5	0.0	0.0	-0.9	3.4	-11.3	
446	6.7	26.4	89.3	0.0	0.0	14.0	-4.2	0.0	0.0	0.6	5.9	28.9	
447	2.2	-22.1	3.8	0.2	0.0	2.9	-10.3	0.0	0.0	0.8	1.4	-20.1	
448	10.8	27.7	137.8	0.1	0.0	22.5	-3.5	0.9	0.0	0.7	5.9	69.2	
449	-8.2	-75.7	-146.2	-0.4	0.0	20.6	-36.7	0.0	0.0	1.0	-8.2	-71.2	
450	7.3	3.9	94.4	0.4	0.0	11.9	-6.7	0.0	0.0	0.6	3.8	17.5	
451	2.9	38.3	60.9	-1.1	0.0	23.6	-6.3	0.0	0.0	0.5	2.4	44.0	

	258	259	260	261	262	263	264	265	266	267	268	269	270	\
0	70.7	-0.4	0.0	13.5	-4.0	0.0	0.0	0.9	3.9	25.5	62.9	-0.3	0.0	
1	34.6	-0.4	0.0	11.0	-2.4	0.0	0.0	0.4	2.6	21.6	43.4	-0.5	0.0	
2	20.7	1.3	0.0	11.1	-3.4	0.0	0.0	0.4	3.4	11.5	48.2	0.9	0.0	
3	63.1	0.1	0.0	15.2	-3.7	0.0	0.0	0.6	3.0	36.8	68.0	0.1	0.0	
4	63.2	-0.2	0.0	9.1	-0.9	0.0	0.0	-0.2	2.9	21.7	48.9	-0.4	0.0	
5	85.8	0.6	0.0	19.5	-11.4	0.0	0.0	0.8	3.3	20.1	49.1	0.0	-0.6	
6	15.4	0.0	0.0	7.4	-2.5	0.0	0.0	0.4	1.3	9.3	18.9	-0.4	0.0	
7	14.2	-0.2	0.0	8.5	-2.7	0.0	0.0	0.1	0.8	14.5	20.9	-0.3	0.0	
8	62.9	0.1	0.0	9.3	-3.8	0.0	0.0	0.8	3.8	15.1	48.5	0.1	0.0	
9	22.3	-0.5	0.0	10.9	-2.5	0.0	0.0	1.0	1.0	23.8	29.6	-0.5	-0.6	
10	-37.3	-0.9	-0.8	12.7	-5.7	0.0	0.0	0.8	-0.3	6.1	3.7	-0.4	-0.5	
11	-6.4	0.0	0.0	4.8	-4.3	0.0	0.0	0.6	0.9	-1.5	5.7	0.1	0.0	

12	13.4	-0.3	0.0	7.1	-4.2	0.0	0.0	0.8	0.5	4.7	8.2	-0.2	0.0
13	103.2	-0.1	-1.1	19.0	-1.4	0.0	0.0	0.5	3.4	47.3	79.9	-0.6	-0.9
14	47.2	0.2	-0.5	13.6	-0.4	0.0	0.0	0.2	1.9	29.3	46.4	0.1	-0.6
15	45.0	0.0	0.0	9.6	-1.6	0.0	0.0	0.7	2.6	20.2	41.5	0.0	0.0
16	60.6	-0.5	0.0	11.5	-2.6	0.0	0.0	0.4	2.8	25.3	47.1	-0.4	0.0
17	20.2	-0.4	0.0	8.4	-1.8	0.0	0.0	0.3	0.5	16.9	19.6	-0.6	0.0
18	26.7	-0.1	0.0	8.3	-1.5	0.0	0.0	0.5	1.1	16.0	25.9	-0.5	0.0
19	86.0	-0.5	0.0	9.5	-1.4	0.0	0.0	0.5	2.0	28.8	43.6	-0.3	0.0
20	62.4	0.1	-0.5	11.4	-2.8	0.0	0.0	0.4	4.2	18.5	64.7	0.0	-0.6
21	15.2	-0.4	0.0	12.7	-5.3	0.0	0.0	1.0	1.4	10.6	21.8	-0.4	-0.6
22	39.0	0.0	0.0	9.8	-2.3	0.0	0.0	0.5	2.0	19.4	37.8	-0.1	0.0
23	18.6	0.0	0.0	9.7	-3.2	0.0	0.0	0.6	1.2	16.2	28.4	0.7	0.0
24	37.1	-0.2	0.0	15.8	-2.9	0.0	0.0	0.5	2.5	35.8	57.8	-0.6	0.0
25	-1.5	-0.3	0.0	9.1	-4.3	0.0	0.0	0.5	2.0	5.4	22.2	-0.7	0.0
26	129.5	0.0	0.0	21.5	-2.8	0.0	0.0	1.0	4.2	54.6	98.2	-0.3	0.0
27	49.8	0.0	0.0	13.2	-2.3	0.0	0.0	0.4	3.5	25.2	57.4	0.0	0.0
28	-14.8	-0.3	0.0	6.5	-2.4	0.0	0.0	0.5	-1.7	11.2	-3.7	-0.4	0.0
29	-20.8	-0.6	0.0	6.8	-6.0	0.0	0.0	0.4	-1.2	-5.5	-16.3	-0.7	0.0
..	...	...	...	...	...	...	...	...	...	...	...	...	...
422	49.8	-0.3	0.0	15.4	-3.1	0.0	0.0	0.6	3.2	33.8	57.4	-0.4	0.0
423	6.3	-0.3	0.0	11.4	-7.2	0.0	0.0	1.0	1.6	4.9	18.3	-0.2	0.0
424	2.4	3.4	0.0	4.7	-8.4	0.0	0.0	0.8	7.2	-24.2	82.3	0.8	0.0
425	56.7	0.5	0.0	11.3	-2.2	0.0	0.0	0.4	3.7	24.9	60.4	0.2	0.0
426	74.2	-0.1	0.0	12.8	-2.4	0.0	0.0	0.4	3.5	24.6	59.6	0.0	0.0
427	-6.9	0.4	0.0	10.8	-6.5	0.0	0.0	0.5	1.0	-9.2	2.6	0.1	-0.4
428	12.3	-0.2	0.0	9.2	-1.7	0.0	0.0	0.4	0.4	20.2	22.9	0.0	0.0
429	-4.1	-0.4	0.0	11.4	-1.3	0.0	0.0	0.9	1.3	32.9	45.9	-0.3	0.0
430	24.8	-0.7	-3.5	29.5	-7.2	0.0	0.0	0.4	1.8	17.1	30.0	-0.3	-3.4
431	57.4	-0.7	0.0	14.8	-2.9	0.0	0.0	0.5	1.6	30.3	42.1	-0.6	0.0
432	79.4	0.6	0.0	23.8	-13.3	0.0	0.0	0.6	8.3	18.4	127.9	0.1	0.0
433	-25.6	-0.3	0.0	2.8	-6.5	0.0	0.0	0.6	-0.5	-13.8	-16.1	0.1	0.0
434	2.2	0.2	0.0	10.6	-4.2	0.0	0.0	0.4	-1.3	11.2	1.1	-0.2	-0.5
435	33.8	-0.1	0.0	11.0	-1.9	0.0	0.0	0.8	1.5	25.2	37.5	-0.1	0.0
436	62.5	0.4	-0.5	12.9	-1.5	0.0	0.0	0.7	3.1	24.2	49.6	0.5	-0.6
437	15.0	-0.5	0.0	11.0	-2.2	0.0	0.0	1.0	1.8	19.8	35.2	-0.6	0.0
438	50.9	-0.6	0.0	16.7	-3.3	0.0	0.0	0.6	1.3	33.4	41.4	-0.4	-0.4
439	25.2	-0.5	0.0	9.9	-1.5	0.0	0.0	0.8	1.9	17.8	30.7	-0.3	0.0
440	65.0	-1.4	-0.5	23.5	-6.6	0.0	0.0	0.9	2.5	30.8	53.8	-1.0	-0.9
441	82.2	-0.1	0.0	16.6	-1.9	0.0	0.0	0.7	2.4	54.5	75.1	0.0	0.0
442	10.1	-0.2	0.0	6.6	-6.7	0.0	0.0	0.6	0.8	-4.2	2.5	-0.1	0.0
443	37.2	-0.5	0.0	16.4	-4.6	0.0	0.0	0.8	2.8	33.4	58.0	-0.4	-0.4
444	49.0	0.3	0.0	9.3	-2.3	0.0	0.0	0.7	3.2	18.1	50.1	0.1	0.0
445	17.2	-0.4	0.0	8.3	-5.1	0.0	0.0	-0.5	1.8	3.4	17.8	-0.4	0.0
446	84.3	0.0	0.0	9.1	-1.6	0.0	0.0	0.5	3.0	20.8	49.0	0.0	0.0
447	-9.5	0.1	0.0	4.1	-8.3	0.0	0.0	0.8	1.0	-8.4	-0.6	0.0	0.0
448	129.3	-0.7	0.0	21.2	-2.8	0.0	0.0	0.4	3.7	50.7	82.5	-0.5	0.0
449	-161.4	0.2	0.0	22.0	-30.8	0.0	0.0	1.9	-2.5	-39.6	-63.6	1.2	0.0
450	56.2	0.1	0.0	15.3	-3.5	0.0	0.0	0.4	3.2	29.7	61.0	0.2	-0.4

451	60.8	-0.4	0.0	12.5	-2.9	0.0	0.0	0.6	1.7	26.7	38.9	-0.3	0.0

	271	272	273	274	275	276	277	278	279
0	9.0	-0.9	0.0	0.0	0.9	2.9	23.3	49.4	8
1	8.5	0.0	0.0	0.0	0.2	2.1	20.4	38.8	6
2	9.5	-2.4	0.0	0.0	0.3	3.4	12.3	49.0	10
3	12.2	-2.2	0.0	0.0	0.4	2.6	34.6	61.6	1
4	13.1	-3.6	0.0	0.0	-0.1	3.9	25.4	62.8	7
5	12.2	-2.8	0.0	0.0	0.9	2.2	13.5	31.1	14
6	6.5	0.0	0.0	0.0	0.4	1.0	14.3	20.5	1
7	8.2	-1.9	0.0	0.0	0.1	0.5	15.8	19.8	1
8	7.0	-1.3	0.0	0.0	0.6	2.1	12.5	30.9	1
9	10.8	-1.7	0.0	0.0	0.8	0.9	20.1	25.1	10
10	9.0	-2.0	0.0	0.0	0.8	0.9	12.3	19.3	3
11	4.4	-2.2	0.0	0.0	0.5	1.5	4.9	17.2	1
12	6.3	-2.1	0.0	0.0	0.8	0.5	8.8	12.1	10
13	12.3	0.0	0.0	0.0	0.4	2.1	28.5	48.6	6
14	12.4	0.0	0.0	0.0	0.3	1.7	39.2	54.1	1
15	7.7	-0.8	0.0	0.0	0.6	1.7	17.2	31.1	1
16	9.4	-1.7	0.0	0.0	0.6	2.3	19.5	41.1	10
17	6.6	0.0	0.0	0.0	0.3	0.7	17.1	20.8	1
18	5.7	0.0	0.0	0.0	0.4	0.5	18.2	22.4	1
19	7.7	-0.9	0.0	0.0	0.5	1.8	25.2	38.5	1
20	9.1	-1.4	0.0	0.0	0.6	3.3	17.1	54.7	1
21	8.3	-1.8	0.0	0.0	0.8	1.1	11.7	19.6	1
22	8.9	-1.0	0.0	0.0	0.5	1.7	19.7	34.3	1
23	6.7	-0.5	0.0	0.0	0.4	1.1	18.4	28.9	1
24	13.6	0.0	0.0	0.0	0.5	2.5	35.3	57.3	1
25	6.9	0.0	0.0	0.0	0.4	1.3	20.7	29.2	16
26	15.3	-1.1	0.0	0.0	0.6	2.6	44.0	68.4	14
27	12.7	-1.8	0.0	0.0	0.3	3.2	25.4	54.8	10
28	5.4	0.0	0.0	0.0	0.4	-1.4	17.2	3.0	2
29	7.3	-3.9	0.0	0.0	0.5	-1.1	3.6	-6.3	2
..	...	...	...	...	...	...	...	...	...
422	14.1	-2.2	0.0	0.0	0.5	3.0	32.7	56.1	1
423	9.6	-3.5	0.0	0.0	1.0	1.6	9.4	23.4	1
424	10.0	-2.1	0.0	0.0	1.0	5.5	36.7	115.9	9
425	10.3	-0.8	0.0	0.0	0.6	3.0	24.1	52.9	1
426	8.7	-0.5	0.0	0.0	0.5	2.3	20.9	40.6	1
427	6.4	-3.5	0.0	0.0	0.4	0.8	-2.9	6.5	10
428	6.7	-0.4	0.0	0.0	0.3	0.4	23.7	26.4	1
429	11.3	-2.1	0.0	0.0	0.7	3.6	16.1	49.2	16
430	19.6	-4.2	0.0	0.0	0.2	1.8	12.2	25.1	10
431	8.5	0.0	0.0	0.0	0.6	1.2	20.4	29.0	6
432	17.1	-7.1	0.0	0.0	0.7	5.5	15.1	84.4	10
433	2.7	-5.4	0.0	0.0	0.3	-0.2	-7.1	-8.3	3
434	10.2	0.0	0.0	0.0	0.5	0.4	24.0	25.4	1
435	9.7	-0.7	0.0	0.0	0.8	1.3	24.1	33.7	1

```
436   9.9  -0.6  0.0  0.0  0.5  2.4  19.1   36.3    1
437  10.7   0.0  0.0  0.0  1.0  2.1  25.6   43.2    1
438  13.5  -1.2  0.0  0.0  0.5  0.6  30.1   35.0    1
439   8.2  -0.7  0.0  0.0  0.8  1.7  21.5   33.7    1
440  16.6  -3.4  0.0  0.0  0.7  1.8  24.9   41.4    1
441  11.4  -0.9  0.0  0.0  0.7  1.8  40.1   55.5    1
442   6.6  -6.1  0.0  0.0  0.5  0.5  -3.8    0.4    1
443  10.5  -2.5  0.0  0.0  0.5  1.4  17.8   29.5   10
444   7.8  -1.3  0.0  0.0  0.5  2.3  14.1   37.1    1
445   7.1  -2.4  0.0  0.0 -0.4  1.3   8.5   17.6    1
446   7.2  -0.7  0.0  0.0  0.5  2.3  17.6   39.2    1
447   4.3  -5.0  0.0  0.0  0.7  0.6  -4.4   -0.5    1
448  15.6  -1.6  0.0  0.0  0.4  2.4  38.0   62.4   10
449  16.3 -28.6  0.0  0.0  1.5  1.0 -44.2  -33.2    2
450  12.0  -0.7  0.0  0.0  0.5  2.4  25.0   46.6    1
451  10.4  -1.8  0.0  0.0  0.5  1.6  21.3   32.8    1

[452 rows x 280 columns]
```

(a) 452 patients, 279 features

(b) The first four columns are most likely age, gender, height in cm, and weight in kg.

```
In [274]: df = df.replace('?', np.nan)
          df = df.apply(pd.to_numeric)

In [275]: df[10].map(type).unique()

Out[275]: array([<type 'float'>], dtype=object)

In [276]: df2 = df.fillna(df.mean())
          df2.astype(int)

Out[276]:      0    1    2    3    4    5    6    7    8    9    10   11   12   13   \
          0     75    0  190   80   91  193  371  174  121  -16   13   64   -2  -13
          1     56    1  165   64   81  174  401  149   39   25   37  -17   31  -13
          2     54    0  172   95  138  163  386  185  102   96   34   70   66   23
          3     55    0  175   94  100  202  380  179  143   28   11   -5   20  -13
          4     75    0  190   80   88  181  360  177  103  -16   13   61    3  -13
          5     13    0  169   51  100  167  321  174   91  107   66   52   88  -13
          6     40    1  160   52   77  129  377  133   77   77   49   75   65  -13
          7     49    1  162   54   78    0  376  157   70   67    7    8   51  -13
          8     44    0  168   56   84  118  354  160   63   61   69   78   66   84
          9     50    1  167   67   89  130  383  156   73   85   34   70   71  -13
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          12    54    1  172   58   78  155  382  163   81  -24   42   41  -13  -13
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433	120	0	52	0	0	0	24	0	0	0	0	0	0	0
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422	0	0	28	0	0	0	0	0	0	56	24	0	0	0
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17	52	0	0	0	0	0	0	0	24	0	0	0	8	0
18	0	0	0	0	0	0	0	0	36	40	0	0	12	0
19	72	1	0	0	0	0	0	0	56	0	0	0	32	0
20	52	0	0	0	0	0	0	12	76	0	0	0	24	0
21	56	0	0	0	0	0	0	44	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	28	32	0	0	16	0
23	0	0	0	0	0	0	0	20	56	0	0	0	36	0
24	0	0	0	0	0	0	0	28	28	0	0	0	36	0
25	0	0	0	0	0	0	0	24	76	0	0	0	56	0
26	68	0	0	0	0	0	0	0	24	68	0	0	12	0
27	52	0	0	0	0	0	0	0	100	0	0	0	36	0
28	0	0	0	0	0	0	0	0	68	0	0	0	24	0
29	56	0	0	0	0	0	0	0	64	0	0	0	40	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	60	0	0	0	0	0	0	32	40	0	0	0	40	0
423	48	0	0	0	0	0	0	0	76	0	0	0	32	0
424	92	0	0	0	0	0	0	20	64	0	0	0	56	0
425	0	0	0	0	0	0	0	0	44	0	0	0	24	0
426	0	0	0	0	0	0	0	0	64	0	0	0	36	0
427	72	0	0	0	0	0	0	0	32	92	0	0	16	0
428	0	0	0	0	0	0	0	16	56	0	0	0	40	0
429	52	0	0	0	0	0	0	0	32	48	0	0	24	0
430	60	0	0	0	0	0	0	0	32	64	0	0	24	0
431	56	0	0	0	0	0	0	0	36	28	0	0	20	0
432	48	0	0	0	0	0	0	0	80	0	0	0	20	0
433	40	0	0	0	0	0	0	16	52	0	0	0	36	0
434	44	0	0	0	0	0	0	16	80	0	0	0	52	0
435	0	0	0	0	0	0	0	0	48	24	0	0	36	0
436	8	0	0	0	0	0	0	0	56	0	0	0	32	0
437	0	0	0	0	0	0	0	0	40	44	0	0	20	0
438	52	0	0	0	0	0	0	20	76	0	0	0	44	0
439	0	0	0	0	0	0	0	0	24	68	0	0	12	0
440	52	0	0	0	0	0	0	24	0	0	0	0	0	0
441	60	0	0	0	0	0	0	0	16	0	0	0	8	0

442	48	0	0	0	0	0	0	24	48	0	0	0	40	0
443	56	0	0	0	0	0	0	0	0	0	0	0	0	0
444	44	0	0	0	0	0	0	0	52	0	0	0	28	0
445	40	0	0	0	0	0	0	52	0	0	0	0	0	0
446	56	0	0	0	0	0	0	20	40	0	0	0	36	0
447	48	0	0	0	0	0	0	0	52	0	0	0	28	0
448	56	0	0	0	0	0	0	64	0	0	0	0	0	0
449	52	0	0	0	0	0	0	24	52	40	0	0	48	0
450	0	0	0	0	0	0	0	0	64	0	0	0	12	0
451	52	0	0	0	0	0	0	20	36	28	0	0	36	0

	70	71	72	73	74	75	76	77	78	79	80	81	82	83	\
0	0	0	0	0	0	48	32	0	0	0	56	0	0	0	
1	0	0	0	0	0	0	60	0	0	0	20	0	0	0	
2	0	0	0	0	0	0	128	0	0	0	24	0	1	0	
3	0	0	0	0	0	0	60	44	0	0	32	0	0	0	
4	0	0	0	0	0	44	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	24	44	40	0	0	44	0	0	0	
6	0	0	0	0	0	0	44	16	0	0	24	0	0	0	
7	0	0	0	0	0	0	52	28	0	0	28	0	0	0	
8	0	0	0	0	0	0	36	12	0	0	20	0	0	0	
9	0	0	0	0	0	0	60	0	0	0	32	0	0	0	
10	0	0	0	0	0	0	84	0	0	0	28	0	0	0	
11	0	0	0	0	0	12	24	16	0	0	20	0	0	0	
12	0	0	0	0	0	72	0	0	0	0	0	0	0	0	
13	0	0	0	0	0	32	44	0	0	0	52	0	0	0	
14	0	0	0	0	0	0	80	0	0	0	32	0	0	0	
15	0	0	0	0	0	0	40	36	0	0	24	0	0	0	
16	0	0	0	0	0	0	52	32	0	0	28	0	0	0	
17	0	0	0	0	0	0	48	0	0	0	28	0	0	0	
18	0	0	0	0	0	0	68	0	0	0	32	0	0	0	
19	0	0	0	0	0	0	24	64	0	0	8	0	0	0	
20	1	0	0	0	0	0	48	24	0	0	28	0	0	0	
21	0	0	0	0	0	0	56	28	0	0	32	0	0	0	
22	0	0	0	0	0	0	72	0	0	0	32	0	0	0	
23	0	0	0	0	0	0	40	40	0	0	24	0	0	0	
24	0	0	0	0	0	0	52	24	0	0	32	0	0	0	
25	0	0	0	0	0	0	44	60	0	0	20	0	0	0	
26	0	0	0	0	0	20	48	0	0	0	40	0	0	0	
27	0	0	0	0	0	0	36	60	0	0	20	0	0	0	
28	0	0	0	0	0	0	24	60	0	0	12	0	0	0	
29	0	0	0	0	0	88	0	0	0	0	0	1	0	0	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	0	0	0	0	0	0	52	36	0	0	32	0	0	0	
423	0	0	0	0	0	0	32	44	0	0	20	0	0	0	
424	0	0	0	0	0	0	64	56	0	0	48	0	0	0	
425	0	0	0	0	0	0	64	0	0	0	24	0	0	0	
426	0	0	0	0	0	0	40	0	0	0	24	0	0	0	

427	0	0	0	0	0	28	28	80	0	0	40	0	0	0
428	0	0	0	0	0	0	48	16	20	0	28	0	0	0
429	0	0	0	0	0	0	64	8	0	0	24	0	0	0
430	0	0	0	0	0	28	32	64	0	0	40	0	0	0
431	0	0	0	0	0	0	68	0	0	0	32	0	0	0
432	0	0	0	0	0	0	36	44	0	0	24	0	0	0
433	0	0	0	0	0	0	24	48	0	0	12	0	0	0
434	0	0	0	0	0	0	40	52	0	0	28	0	0	0
435	0	0	0	0	0	16	56	0	0	0	40	0	0	0
436	0	0	0	0	0	12	36	16	0	0	32	0	0	0
437	0	0	0	0	0	0	76	0	0	0	20	0	0	0
438	0	0	0	0	0	0	44	48	0	0	28	0	0	0
439	0	0	0	0	0	0	92	0	0	0	32	0	0	0
440	0	0	0	0	0	0	56	0	0	0	36	0	0	0
441	0	0	0	0	0	0	56	0	0	0	32	0	0	0
442	0	0	0	0	0	0	36	48	0	0	20	0	0	0
443	0	0	0	0	0	0	48	40	0	0	28	0	0	0
444	0	0	0	0	0	0	32	20	0	0	16	0	0	0
445	0	0	0	0	0	0	40	0	0	0	20	0	0	0
446	0	0	0	0	0	0	56	20	0	0	36	0	0	0
447	0	0	0	0	0	0	24	56	0	0	8	0	0	0
448	0	0	0	0	0	0	76	0	0	0	32	0	0	0
449	0	0	0	0	0	0	32	60	0	0	16	0	0	0
450	0	0	0	0	0	12	64	0	0	0	36	0	0	0
451	0	0	0	0	0	0	84	0	0	0	36	0	0	0

	84	85	86	87	88	89	90	91	92	93	94	95	96	97	\
0	0	0	0	80	0	0	0	0	0	0	0	0	0	0	
1	0	0	0	0	24	52	0	0	16	0	0	0	0	0	
2	0	0	0	0	24	36	76	0	100	0	0	0	0	0	
3	0	0	0	56	0	0	0	0	0	0	0	0	0	0	
4	0	0	0	88	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	36	60	0	0	24	0	0	0	0	0	
6	0	0	0	0	20	56	0	0	12	0	0	0	0	0	
7	0	0	0	0	20	44	0	0	8	0	0	0	0	0	
8	0	0	0	0	20	56	0	0	12	0	0	0	0	0	
9	0	0	0	0	24	36	32	0	68	0	0	0	0	0	
10	0	0	0	0	24	64	0	0	12	0	0	0	0	0	
11	0	0	0	0	20	44	0	0	12	0	0	0	0	0	
12	0	0	0	0	24	36	28	0	72	0	0	0	0	0	
13	0	0	0	0	44	44	0	0	28	0	0	0	0	0	
14	0	0	0	0	28	48	0	0	20	0	0	1	0	0	
15	0	0	0	0	20	44	0	0	12	0	0	0	0	0	
16	0	0	0	0	16	48	20	0	72	0	0	0	0	0	
17	0	0	0	60	0	0	0	0	0	0	0	0	0	0	
18	0	0	0	72	0	0	0	0	0	0	0	0	0	0	
19	0	0	0	60	20	0	0	0	64	0	0	0	0	0	
20	0	0	0	0	24	68	0	0	16	0	0	0	0	0	

21	0	0	0	0	32	44	0	0	20	0	0	0	0	0
22	0	0	0	0	32	40	0	0	20	0	0	0	0	0
23	0	0	0	0	28	60	0	0	16	0	0	0	0	0
24	0	0	0	0	24	48	0	0	12	0	0	0	0	0
25	0	0	0	76	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	28	48	32	0	12	0	0	0	0	0
27	0	0	0	0	24	40	32	0	72	0	0	0	0	0
28	0	0	0	76	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	20	52	0	0	8	0	0	0	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	0	0	24	52	0	0	16	0	0	0	0	0
423	0	0	0	76	0	0	0	0	0	0	0	0	0	0
424	0	0	0	0	20	92	0	0	12	0	0	0	0	0
425	0	0	0	0	32	56	0	0	20	0	0	0	0	0
426	0	0	0	0	24	44	0	0	12	0	0	0	0	0
427	0	0	0	0	28	36	80	0	96	0	0	0	0	0
428	0	0	0	0	20	64	0	0	12	0	0	0	0	0
429	0	0	0	0	20	20	52	0	52	0	0	0	0	0
430	0	0	0	0	32	24	56	0	88	0	0	0	1	0
431	0	0	0	0	28	52	0	0	20	0	0	0	0	0
432	0	0	0	0	20	32	0	0	8	0	0	0	0	0
433	0	0	0	52	0	0	0	0	0	0	0	0	0	0
434	0	0	0	0	28	60	0	0	20	0	0	0	0	0
435	0	0	0	0	24	52	0	0	8	0	0	0	0	0
436	0	0	0	0	28	48	0	0	20	0	0	0	0	0
437	0	0	0	0	20	60	0	0	8	0	0	0	0	0
438	0	0	0	0	28	40	0	0	16	0	0	0	0	0
439	0	0	0	0	24	44	0	0	12	0	0	0	0	0
440	0	0	0	0	28	60	0	0	16	0	0	0	0	0
441	0	0	0	0	32	56	0	0	20	0	0	0	0	0
442	0	0	0	0	24	48	0	0	12	0	0	0	0	0
443	0	0	0	0	36	20	44	0	68	0	0	0	0	0
444	0	0	0	0	20	52	0	0	12	0	0	0	0	0
445	0	0	0	0	32	60	0	0	20	0	0	0	0	0
446	0	0	0	0	20	60	0	0	12	0	0	0	0	0
447	0	0	0	60	0	0	0	0	0	0	0	0	0	0
448	0	0	0	44	36	0	0	0	52	0	0	0	0	0
449	0	0	0	0	20	16	44	28	56	0	0	0	0	0
450	0	0	0	0	28	52	0	0	16	0	0	0	0	0
451	0	0	0	0	28	40	0	0	16	0	0	0	0	0

	98	99	100	101	102	103	104	105	106	107	108	109	110	111	\
0	0	0	40	52	0	0	28	0	0	0	0	0	0	0	
1	0	0	32	52	0	0	20	0	0	0	0	0	0	0	
2	0	0	40	28	60	0	96	0	0	0	0	0	0	0	
3	0	0	40	44	0	0	20	0	0	0	0	0	0	0	
4	0	0	40	52	0	0	28	0	0	0	0	0	0	0	
5	0	20	32	60	0	0	40	0	0	0	0	0	0	24	

6	0	0	24	56	0	0	16	0	0	0	0	0	0	0
7	0	0	24	48	0	0	16	0	0	0	0	0	0	0
8	0	0	24	48	0	0	12	0	0	0	0	0	0	0
9	0	0	36	44	0	0	20	0	0	0	0	0	0	0
10	0	20	16	56	0	0	28	0	0	0	0	0	0	24
11	0	0	36	48	0	0	24	0	0	0	0	0	0	0
12	0	0	36	32	0	0	24	0	0	0	0	0	0	0
13	0	0	48	24	0	0	32	0	0	0	0	0	0	0
14	0	0	36	36	0	0	20	0	0	0	0	0	0	0
15	0	0	28	44	0	0	20	0	0	0	0	0	0	0
16	0	0	20	48	20	0	76	0	0	0	0	0	0	0
17	1	60	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	24	64	0	0	16	0	0	0	0	0	0	0
19	0	0	44	24	0	0	20	0	0	0	0	0	0	0
20	0	0	36	48	0	0	24	0	0	0	0	0	0	0
21	0	0	40	36	24	0	24	0	0	0	0	0	0	0
22	0	0	40	28	0	0	24	0	0	0	0	0	0	0
23	0	0	32	44	0	0	20	0	0	0	0	0	0	0
24	0	0	28	44	0	0	16	0	0	0	0	0	0	0
25	0	0	20	64	0	0	12	0	0	0	0	0	0	0
26	0	0	32	48	0	0	20	0	0	1	1	0	0	0
27	0	0	36	44	0	0	24	0	0	0	0	0	0	0
28	0	72	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	36	48	0	0	20	0	0	0	0	0	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	32	52	0	0	20	0	0	0	0	0	0	0
423	0	0	36	52	0	0	24	0	0	0	0	0	0	0
424	0	0	28	80	0	0	16	0	0	0	0	0	0	0
425	0	0	36	44	0	0	24	0	0	0	0	0	0	0
426	0	0	24	48	0	0	16	0	0	0	0	0	0	0
427	0	0	40	60	0	0	24	0	0	0	0	0	0	0
428	0	0	24	64	0	0	12	0	0	0	0	0	0	0
429	0	0	40	40	0	0	24	0	0	0	0	0	0	0
430	0	0	32	28	72	0	20	0	0	1	0	0	0	0
431	0	0	32	52	0	0	20	0	0	0	0	0	0	0
432	0	0	24	20	48	0	56	0	0	0	0	0	0	0
433	0	44	0	0	0	0	0	0	0	0	0	0	0	60
434	0	0	44	48	0	0	36	0	0	0	0	0	0	0
435	0	0	44	32	0	0	32	0	0	0	0	0	0	0
436	0	0	36	40	0	0	24	0	0	0	0	0	0	0
437	0	0	24	60	0	0	16	0	0	0	0	0	0	0
438	0	0	36	40	0	0	20	0	0	0	0	0	0	0
439	0	0	44	64	0	0	32	0	0	0	0	0	0	0
440	0	0	32	48	0	0	20	0	0	0	0	0	0	0
441	0	0	36	44	0	0	24	0	0	0	0	0	0	0
442	0	0	40	20	0	0	24	0	0	0	0	0	0	0
443	0	0	44	32	28	0	28	0	0	0	0	0	0	0
444	0	0	28	44	0	0	20	0	0	0	0	0	0	0

445	0	0	28	64	0	0	16	0	0	0	0	0	0	0
446	0	0	44	48	0	0	28	0	0	0	0	0	0	0
447	0	0	16	56	0	0	8	0	0	0	0	0	0	0
448	0	0	32	44	0	0	20	0	0	0	0	0	0	0
449	0	0	84	28	0	0	60	0	0	0	0	0	0	0
450	0	0	36	44	0	0	20	0	0	0	0	0	0	0
451	0	0	44	40	0	0	24	0	0	0	0	0	0	0

	112	113	114	115	116	117	118	119	120	121	122	123	124	125	\
0	48	48	0	0	32	0	0	0	0	0	0	0	52	52	
1	44	48	0	0	32	0	0	0	0	0	0	0	48	44	
2	48	20	56	24	32	0	0	0	0	0	0	0	44	88	
3	52	40	0	0	32	0	0	0	0	0	0	0	56	48	
4	48	48	0	0	32	0	0	0	0	0	0	0	48	52	
5	32	60	0	0	44	0	0	0	0	0	0	0	52	40	
6	36	48	0	0	24	0	0	0	0	0	0	0	40	44	
7	36	44	0	0	24	0	0	0	0	0	0	0	44	48	
8	28	44	0	0	16	0	0	0	0	0	0	0	44	32	
9	40	48	0	0	24	0	0	0	0	0	0	0	56	40	
10	28	52	0	0	40	0	0	0	0	0	0	24	32	56	
11	40	48	0	0	24	0	0	0	0	0	0	0	36	56	
12	44	44	0	0	28	0	0	0	0	0	0	0	48	52	
13	52	36	0	0	36	0	0	0	0	0	0	0	60	12	
14	52	20	0	0	32	0	0	0	0	0	0	0	48	12	
15	48	20	0	0	20	0	0	0	0	0	0	0	48	24	
16	24	52	0	0	12	0	0	0	0	0	0	0	56	28	
17	32	44	0	0	16	0	0	0	0	0	0	0	48	40	
18	40	52	0	0	28	0	0	0	0	0	0	0	44	52	
19	52	28	0	0	32	0	0	0	0	0	0	0	60	20	
20	48	32	0	0	32	0	0	0	0	0	0	0	48	28	
21	40	44	0	0	24	0	0	0	0	0	0	0	44	56	
22	44	28	0	0	28	0	0	0	0	0	0	0	48	24	
23	40	64	0	0	24	0	0	0	0	0	0	0	44	48	
24	40	40	0	0	24	0	0	0	0	0	0	0	48	40	
25	32	56	0	0	20	0	0	0	0	0	0	0	36	68	
26	36	48	0	0	24	0	0	1	1	0	0	0	56	24	
27	64	36	0	0	40	0	0	0	0	0	0	0	48	52	
28	48	52	0	0	32	0	0	0	0	0	0	0	44	56	
29	44	52	0	0	28	0	0	0	0	1	0	0	44	68	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	56	32	0	0	28	0	0	0	0	0	0	0	60	40	
423	44	48	0	0	32	0	0	0	0	0	0	0	40	60	
424	28	84	0	0	20	0	0	0	0	0	0	0	32	88	
425	48	32	0	0	24	0	0	0	0	0	0	0	44	24	
426	36	40	0	0	20	0	0	0	0	0	0	0	48	24	
427	48	84	0	0	36	0	0	0	0	0	0	0	44	80	
428	32	60	0	0	16	0	0	0	0	0	0	0	48	52	
429	64	16	0	0	48	0	0	0	0	0	0	0	64	20	

430	36	96	0	0	24	0	0	0	0	0	0	0	52	72
431	48	40	0	0	24	0	0	0	0	0	0	0	48	40
432	32	40	0	0	20	0	0	0	0	0	0	0	40	40
433	0	0	0	0	0	0	0	0	0	0	1	0	28	60
434	52	44	0	0	40	0	0	0	0	0	0	0	44	36
435	52	28	0	0	36	0	0	0	0	0	0	0	52	36
436	48	16	0	0	32	0	0	0	0	0	0	0	44	20
437	32	56	0	0	20	0	0	0	0	0	0	0	40	48
438	44	36	0	0	28	0	0	0	0	0	0	0	48	44
439	56	60	0	0	40	0	0	0	0	0	0	0	44	56
440	36	48	0	0	24	0	0	0	0	0	0	0	56	48
441	60	24	0	0	36	0	0	0	0	0	0	0	68	20
442	48	28	0	0	32	0	0	0	0	0	0	0	48	40
443	44	48	0	0	28	0	0	0	0	0	0	0	52	36
444	40	32	0	0	24	0	0	0	0	0	0	0	44	24
445	32	56	0	0	16	0	0	0	0	0	0	0	48	52
446	72	20	0	0	56	1	0	0	0	0	0	0	52	36
447	28	52	0	0	16	0	0	0	0	0	0	0	32	48
448	56	24	0	0	36	0	0	0	0	0	0	0	64	20
449	44	68	0	0	32	0	0	0	0	0	0	0	52	68
450	44	40	0	0	28	0	0	0	0	0	0	0	52	40
451	48	36	0	0	32	0	0	0	0	0	0	0	48	40

	126	127	128	129	130	131	132	133	134	135	136	137	138	139	\
0	0	0	36	0	0	0	0	0	0	0	52	48	0	0	
1	0	0	32	0	0	0	0	0	0	0	48	40	0	0	
2	0	0	28	0	0	0	0	0	0	0	44	76	0	0	
3	0	0	36	0	0	0	0	0	0	0	60	48	0	0	
4	0	0	32	0	0	0	0	0	0	0	52	44	0	0	
5	0	0	36	0	0	0	0	0	0	0	44	40	0	0	
6	0	0	28	0	0	0	0	0	0	0	40	44	0	0	
7	0	0	28	0	0	0	0	0	0	0	48	44	0	0	
8	0	0	32	0	0	0	0	0	0	0	44	28	0	0	
9	0	0	40	0	0	0	0	0	0	0	52	36	0	0	
10	0	0	40	0	0	0	0	0	0	20	36	56	0	0	
11	0	0	24	0	0	0	0	0	0	0	40	52	0	0	
12	0	0	32	0	0	0	0	0	0	0	44	52	0	0	
13	20	0	36	0	0	0	0	0	0	24	52	12	0	0	
14	0	0	24	0	0	0	0	0	0	16	44	12	0	0	
15	0	0	28	0	0	0	0	0	0	0	48	36	0	0	
16	0	0	40	0	0	0	0	0	0	0	52	36	0	0	
17	0	0	32	0	0	0	0	0	0	0	48	36	0	0	
18	0	0	32	0	0	0	0	0	0	0	48	52	0	0	
19	0	0	36	0	0	0	0	0	0	0	64	24	0	0	
20	0	0	32	0	0	0	0	0	0	16	40	28	0	0	
21	0	0	32	0	0	0	0	0	0	0	40	56	0	0	
22	0	0	32	0	0	0	0	0	0	0	48	36	0	0	
23	0	0	28	0	0	0	0	0	0	0	48	44	0	0	

24	0	0	28	0	0	0	0	0	0	0	52	36	0	0
25	0	0	24	0	0	0	0	0	0	0	44	68	0	0
26	0	0	36	0	0	0	0	0	0	0	56	40	0	0
27	0	0	28	0	0	0	0	0	0	0	48	56	0	0
28	0	0	28	0	0	0	0	0	0	0	52	48	0	0
29	0	0	28	0	0	0	0	0	0	0	44	68	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	40	0	0	0	0	0	0	0	52	40	0	0
423	0	0	28	0	0	0	0	0	0	0	44	56	0	0
424	0	0	20	0	0	0	0	0	0	0	40	80	0	0
425	0	0	32	0	0	0	0	0	0	0	48	20	0	0
426	24	16	32	0	0	0	0	0	0	0	52	72	0	0
427	0	0	32	0	0	0	0	0	0	0	36	88	0	0
428	0	0	32	0	0	0	0	0	0	0	52	44	0	0
429	0	0	44	0	0	0	0	0	0	0	60	20	0	0
430	0	0	36	0	0	0	0	0	0	24	32	72	0	0
431	0	0	32	0	0	0	0	0	0	0	48	36	0	0
432	0	0	24	0	0	0	0	0	0	0	40	44	0	0
433	0	0	20	0	0	0	0	0	0	0	32	56	0	0
434	0	0	32	0	0	0	0	0	0	0	40	48	0	0
435	0	0	32	0	0	0	0	0	0	0	52	36	0	0
436	16	0	28	0	0	0	0	0	0	16	40	16	0	0
437	0	0	28	0	0	0	0	0	0	0	44	40	0	0
438	0	0	28	0	0	0	0	0	0	0	48	40	0	0
439	0	0	28	0	0	0	0	0	0	0	44	52	0	0
440	0	0	40	0	0	0	0	0	0	16	40	48	0	0
441	0	0	48	0	0	0	0	0	0	0	68	20	0	0
442	0	0	32	0	0	0	0	0	0	0	44	56	0	0
443	0	0	32	0	0	0	0	0	0	0	52	40	0	0
444	0	0	28	0	0	0	0	0	0	0	44	20	0	0
445	0	0	32	0	0	0	0	0	0	0	40	52	0	0
446	0	0	36	0	0	0	0	0	0	0	52	36	0	0
447	0	0	20	0	0	0	0	0	0	0	40	40	0	0
448	16	0	44	0	0	0	0	0	0	0	52	32	0	0
449	0	0	40	0	0	0	0	0	0	0	48	60	0	0
450	0	0	36	0	0	0	0	0	0	0	48	40	0	0
451	0	0	32	0	0	0	0	0	0	0	52	40	0	0

	140	141	142	143	144	145	146	147	148	149	150	151	152	153	\
0	32	0	0	0	0	0	0	0	56	44	0	0	32	0	
1	28	0	0	0	0	0	0	0	48	0	0	0	28	0	
2	28	0	0	0	0	0	0	0	44	72	0	0	24	0	
3	36	0	0	0	0	0	0	0	64	40	0	0	40	0	
4	28	0	0	0	0	0	0	0	52	48	0	0	32	0	
5	32	0	0	0	0	0	0	20	36	56	0	0	40	0	
6	24	0	0	0	0	0	0	0	44	0	0	0	24	0	
7	28	0	0	0	0	0	0	0	48	40	0	0	24	0	
8	28	0	0	0	0	0	0	0	40	24	0	0	24	0	

9	32	0	0	0	0	0	0	20	44	36	0	0	44	0
10	40	0	0	0	0	0	0	20	40	52	0	0	40	0
11	28	0	0	0	0	0	0	0	40	36	0	0	24	0
12	32	0	0	0	0	0	0	0	44	48	0	0	28	0
13	52	0	0	0	0	0	0	24	48	0	0	0	48	0
14	36	0	0	0	0	0	0	16	64	0	0	0	40	0
15	28	0	0	0	0	0	0	0	48	32	0	0	28	0
16	32	0	0	0	0	0	0	0	48	36	0	0	28	0
17	28	0	0	0	0	0	0	0	52	0	0	0	28	0
18	28	0	0	0	0	0	0	0	64	0	0	0	28	0
19	40	0	0	0	0	0	0	0	68	20	0	0	40	0
20	40	0	0	0	0	0	0	16	44	36	0	0	40	0
21	24	0	0	0	0	0	0	20	40	48	0	0	40	0
22	28	0	0	0	0	0	0	0	48	32	0	0	24	0
23	28	0	0	0	0	0	0	0	56	12	0	0	36	0
24	32	0	0	0	0	0	0	0	52	0	0	0	28	0
25	24	0	0	0	0	0	0	0	60	0	0	0	24	0
26	32	0	0	0	0	0	0	0	60	36	0	0	32	0
27	24	0	0	0	0	0	0	0	48	56	0	0	28	0
28	32	0	0	0	0	0	0	0	64	0	0	0	36	0
29	28	0	0	0	0	0	0	0	44	64	0	0	28	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	32	0	0	0	0	0	0	0	52	36	0	0	28	0
423	28	0	0	0	0	0	0	0	40	56	0	0	24	0
424	24	0	0	0	0	0	0	0	80	32	0	0	40	0
425	32	0	0	0	0	0	0	0	48	16	0	0	28	0
426	32	0	0	0	0	0	0	0	52	68	0	0	28	0
427	20	0	0	0	0	0	0	16	40	88	0	0	36	0
428	32	0	0	0	0	0	0	0	72	20	0	0	28	0
429	24	0	0	0	0	0	0	0	36	40	0	0	20	0
430	40	0	0	0	0	0	0	24	32	72	0	0	40	0
431	24	0	0	0	0	0	0	0	48	0	0	0	28	0
432	28	0	0	0	0	0	0	0	36	44	0	0	20	0
433	20	0	0	0	0	0	0	0	28	40	0	0	16	0
434	20	0	0	0	0	0	0	16	48	0	0	0	36	0
435	32	0	0	0	0	0	0	0	52	32	0	0	28	0
436	36	0	0	0	0	0	0	16	40	12	0	0	36	0
437	24	0	0	0	0	0	0	0	48	0	0	0	28	0
438	28	0	0	0	0	0	0	12	48	36	0	0	36	0
439	24	0	0	0	0	0	0	0	56	40	0	0	28	0
440	40	0	0	0	0	0	0	20	40	44	0	0	40	0
441	44	0	0	0	0	0	0	0	72	20	0	0	48	1
442	32	0	0	0	0	0	0	0	40	56	0	0	28	0
443	32	0	0	0	0	0	0	16	44	40	0	0	40	0
444	24	0	0	0	0	0	0	0	40	24	0	0	24	0
445	28	0	0	0	0	0	0	0	40	48	0	0	24	0
446	32	0	0	0	0	0	0	0	52	32	0	0	28	0
447	24	0	0	0	0	0	0	0	40	52	0	0	24	0

448	28	0	0	0	0	0	0	0	52	32	0	0	28	0
449	32	0	0	0	0	0	0	0	44	56	0	0	32	0
450	28	0	0	0	0	0	0	16	44	32	0	0	36	0
451	36	0	0	0	0	0	0	0	48	40	0	0	32	0

	154	155	156	157	158	159	160	161	162	163	164	165	166	167	\
0	0	0	0	0	0	0	0	6	-1	0	0	0	2	13	
1	0	0	0	0	0	0	0	7	0	0	0	0	1	17	
2	0	0	0	0	0	1	0	4	-2	0	0	0	2	-2	
3	0	0	0	0	0	0	0	7	0	0	0	1	1	27	
4	0	0	0	0	0	0	0	5	-1	0	0	0	2	9	
5	0	0	0	0	0	0	0	2	-6	0	0	0	1	-10	
6	0	0	0	0	0	0	0	1	0	0	0	0	1	3	
7	0	0	0	0	0	0	0	4	-1	0	0	0	1	7	
8	0	0	0	0	0	0	0	2	0	0	0	0	1	4	
9	0	0	0	0	0	0	0	3	-2	0	0	0	1	3	
10	0	0	0	0	0	0	0	5	-1	0	0	0	0	5	
11	0	0	0	0	0	0	0	6	-1	0	0	0	1	9	
12	0	0	0	0	0	0	0	6	0	0	0	0	0	22	
13	0	0	0	0	0	0	0	3	0	0	0	0	1	14	
14	0	0	0	0	0	0	0	10	0	0	0	0	2	40	
15	0	0	0	0	0	0	0	5	0	0	0	0	1	13	
16	0	0	0	0	0	0	0	2	0	0	0	0	0	5	
17	0	0	0	0	0	0	0	3	0	0	0	0	0	7	
18	0	0	0	0	0	0	0	2	0	0	0	0	1	3	
19	0	0	0	0	0	0	0	9	0	0	0	0	1	26	
20	0	0	0	0	0	0	0	4	0	0	0	0	3	7	
21	0	0	0	0	0	0	0	3	-1	0	0	0	0	3	
22	0	0	0	0	0	0	0	5	0	0	0	0	1	11	
23	0	0	0	0	0	0	0	5	0	0	0	0	1	21	
24	0	0	0	0	0	0	0	4	0	0	0	0	1	18	
25	0	0	0	0	0	0	0	8	0	0	0	0	-1	31	
26	0	0	0	0	0	0	0	1	-1	0	0	0	1	1	
27	0	0	0	0	0	0	0	7	0	0	0	0	1	18	
28	0	0	0	0	0	0	0	10	0	0	0	0	-1	37	
29	0	0	0	0	0	-1	0	12	0	0	0	0	-1	38	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	0	0	0	0	0	0	0	3	0	0	0	0	1	11	
423	0	0	0	0	0	0	0	4	0	0	0	0	1	16	
424	0	0	0	0	0	0	0	3	0	0	0	1	1	19	
425	0	0	0	0	0	0	0	6	0	0	0	1	2	23	
426	0	0	0	0	0	0	0	4	0	0	0	0	1	14	
427	0	0	0	0	0	0	0	2	-3	0	0	0	0	-6	
428	0	0	0	0	0	0	0	4	0	0	0	0	0	13	
429	0	0	0	0	0	0	0	6	-5	0	0	1	1	-1	
430	0	0	0	0	0	1	0	3	-3	0	0	1	2	-4	
431	0	0	0	0	0	0	0	4	-1	0	0	0	0	8	
432	0	0	0	0	0	0	0	5	0	0	0	0	2	9	

433	0	0	0	0	0	0	0	4	0	0	0	0	0	10
434	0	0	0	0	0	0	0	6	0	0	0	0	1	26
435	0	0	0	0	0	0	0	6	0	0	0	0	1	15
436	0	0	0	0	0	0	0	7	0	0	0	0	1	16
437	0	0	0	0	0	0	0	4	-1	0	0	0	1	6
438	0	0	0	0	0	0	0	8	0	0	0	0	0	26
439	0	0	0	0	0	0	0	3	-2	0	0	0	1	-2
440	0	0	0	0	0	0	0	5	0	0	0	0	1	9
441	0	1	0	0	0	0	0	3	0	0	0	0	1	8
442	0	0	0	0	0	0	0	7	-1	0	0	0	1	11
443	0	0	0	0	0	0	0	3	-1	0	0	0	0	2
444	0	0	0	0	0	0	0	5	0	0	0	0	2	12
445	0	0	0	0	0	0	0	2	-1	0	0	0	0	1
446	0	0	0	0	0	0	0	6	0	0	0	0	1	14
447	0	0	0	0	0	0	0	6	0	0	0	0	0	15
448	0	0	0	0	0	0	0	3	-1	0	0	0	1	4
449	0	0	0	0	0	0	0	8	-5	0	0	1	2	4
450	0	0	0	0	0	0	0	5	0	0	0	0	2	14
451	0	0	0	0	0	0	0	10	-1	0	0	0	0	20

	168	169	170	171	172	173	174	175	176	177	178	179	180	181	\
0	30	0	0	1	-1	0	0	1	1	3	14	0	-5	1	
1	26	0	0	5	0	0	0	0	1	17	29	0	-1	0	
2	19	0	0	6	-1	0	0	0	2	14	37	0	0	4	
3	45	0	0	9	-2	0	0	0	1	24	36	0	0	1	
4	31	0	0	1	0	0	0	1	1	2	18	0	-3	1	
5	7	0	-1	19	-2	0	0	1	4	36	84	0	-2	21	
6	10	0	0	7	-1	0	0	0	1	13	22	0	0	5	
7	13	0	0	8	-1	0	0	0	0	19	22	0	0	4	
8	11	1	0	5	0	0	0	1	2	11	31	1	0	3	
9	13	0	0	9	0	0	0	1	1	26	35	0	0	8	
10	8	0	0	7	0	0	0	1	1	19	29	0	0	1	
11	22	0	0	4	-1	0	0	1	1	7	21	0	-2	1	
12	26	0	0	3	-2	0	0	0	0	2	7	0	-3	0	
13	21	0	-1	14	0	0	0	0	1	32	44	0	-2	13	
14	58	0	0	12	0	0	0	0	2	45	61	0	0	4	
15	25	0	0	7	-1	0	0	1	2	14	31	0	0	2	
16	10	0	0	9	-1	0	0	1	2	22	42	0	0	7	
17	10	0	0	6	0	0	0	0	0	14	18	0	0	3	
18	11	0	0	3	0	0	0	0	0	15	17	0	0	3	
19	39	0	0	3	-1	0	0	1	1	9	23	0	0	0	
20	37	0	0	7	-1	0	0	1	3	13	50	0	0	2	
21	5	0	0	8	-1	0	0	1	1	18	26	0	0	6	
22	17	0	0	7	0	0	0	1	1	28	39	0	0	5	
23	27	0	0	4	-1	0	0	0	0	9	12	0	0	1	
24	31	0	0	11	0	0	0	0	1	27	39	0	0	6	
25	16	0	0	4	-4	0	0	0	1	-4	13	0	0	1	
26	10	0	0	9	0	0	0	1	2	21	36	0	0	8	

27	33	0	0	9	-3	0	0	0	3	15	39	0	0	2
28	21	0	0	4	0	0	0	1	0	11	13	0	0	0
29	12	0	0	4	-4	0	0	0	0	-4	-16	1	-10	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	22	0	0	12	-3	0	0	0	2	26	45	0	0	8
423	27	0	0	4	-2	0	0	1	2	4	25	0	-3	0
424	31	1	0	5	-9	0	0	1	7	-5	76	2	0	3
425	42	0	0	9	0	0	0	1	2	30	48	0	0	2
426	23	0	0	7	0	0	0	1	1	15	24	-1	0	2
427	0	0	0	4	-2	0	0	0	1	-2	4	0	0	2
428	12	0	0	4	0	0	0	0	0	17	20	0	0	0
429	5	0	0	10	0	0	0	1	2	31	44	0	0	5
430	19	0	-2	15	-2	0	0	0	0	13	24	-1	-5	16
431	15	0	0	5	0	0	0	1	1	16	25	0	0	1
432	25	0	0	6	-5	0	0	1	3	3	30	0	0	1
433	9	0	0	0	-7	0	0	0	0	-15	-12	0	0	0
434	40	0	0	6	-4	0	0	1	1	4	18	0	0	0
435	23	0	0	9	0	0	0	1	1	28	36	0	0	3
436	27	0	0	9	0	0	0	1	2	16	36	0	0	1
437	15	0	0	9	0	0	0	1	1	31	43	0	0	5
438	22	0	0	8	-2	0	0	1	0	12	17	0	0	1
439	5	0	0	7	0	0	0	1	0	34	37	0	0	7
440	21	0	0	10	-1	0	0	0	2	27	46	0	0	5
441	17	0	0	8	0	0	0	1	1	25	32	0	0	5
442	23	0	0	3	-4	0	0	0	0	-3	2	0	0	2
443	8	0	0	6	-3	0	0	0	0	9	14	0	0	3
444	35	0	0	6	-1	0	0	1	2	11	33	0	0	1
445	6	0	0	6	-1	0	0	0	1	11	25	0	0	4
446	27	0	0	7	0	0	0	1	2	20	37	0	0	1
447	20	0	0	1	-2	0	0	1	0	-1	2	0	0	0
448	11	0	0	10	0	0	0	0	2	29	47	0	0	7
449	20	1	0	1	-16	0	0	-1	0	-43	-38	1	0	1
450	33	0	0	9	0	0	0	0	2	29	44	1	0	4
451	21	0	0	7	0	0	0	1	2	21	33	0	0	0

	182	183	184	185	186	187	188	189	190	191	192	193	194	195	\
0	0	0	0	0	0	-10	-15	0	-3	0	0	0	0	0	
1	0	0	0	0	0	-1	1	0	-6	0	0	0	0	0	
2	0	0	0	0	0	24	26	-1	-5	1	0	0	0	0	
3	-2	0	0	-1	0	-1	-9	0	-8	1	0	0	0	0	
4	0	0	0	1	0	-7	-13	0	-3	0	0	0	0	-1	
5	0	0	0	0	2	66	95	0	-9	3	0	0	0	-1	
6	0	0	0	0	0	12	15	0	-4	0	0	0	0	0	
7	0	0	0	0	0	11	6	0	-6	1	0	0	0	0	
8	0	0	0	1	1	5	17	0	-3	0	0	0	0	-1	
9	0	0	0	0	0	29	32	0	-6	1	0	0	0	0	
10	0	0	0	1	1	8	16	0	-5	1	0	0	0	-1	
11	0	0	0	0	0	-1	0	0	-5	1	0	0	0	-1	

12	0	0	0	0	0	-14	-13	0	-5	0	0	0	0	-1
13	0	0	0	0	0	21	25	0	-8	0	0	0	0	0
14	0	0	0	0	0	12	7	0	-11	0	0	0	0	0
15	-1	0	0	0	0	1	6	0	-6	1	0	0	0	0
16	-1	0	0	1	2	17	32	0	-6	1	0	0	0	0
17	0	0	0	0	0	6	7	0	-4	0	0	0	0	0
18	0	0	0	0	-1	11	3	0	-2	0	0	0	0	0
19	-6	0	0	0	0	-23	-23	0	-6	0	0	0	0	-1
20	-1	0	0	0	0	5	12	0	-6	1	0	0	0	0
21	-1	0	0	1	1	16	23	0	-5	1	0	0	0	-1
22	0	0	0	0	0	13	18	0	-6	0	0	0	0	-1
23	-4	0	0	0	0	-8	-11	0	-4	0	0	0	0	0
24	-1	0	0	0	0	9	6	0	-7	0	0	0	0	0
25	-10	0	0	0	2	-38	-14	0	-5	0	0	0	0	0
26	0	0	0	0	0	28	33	0	0	0	-5	1	0	-1
27	-3	0	0	0	1	-7	1	0	-8	1	0	0	0	0
28	-6	0	0	0	0	-19	-13	0	-7	0	0	0	0	0
29	0	0	0	0	1	-44	-27	0	-8	3	0	0	0	0
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	-2	0	0	0	1	15	22	0	-8	1	0	0	0	0
423	0	0	0	0	1	-7	2	0	-4	1	0	0	0	-1
424	-12	0	0	0	7	-27	53	0	-4	2	0	0	0	-1
425	0	0	0	0	0	6	3	0	-7	0	0	0	0	-1
426	0	0	0	0	0	3	5	0	-5	0	0	0	0	0
427	0	0	-1	0	0	1	-2	0	0	0	-3	2	0	0
428	-1	0	0	0	0	-1	3	0	-4	0	0	0	0	0
429	0	0	0	0	0	17	21	0	-8	2	0	0	0	-1
430	0	0	0	0	-1	35	13	0	0	0	-7	2	0	0
431	0	0	0	0	0	4	6	0	-5	0	0	0	0	0
432	-4	0	0	0	1	-8	1	0	-5	3	0	0	0	0
433	-10	0	0	0	0	-25	-19	0	-1	2	0	0	0	0
434	-7	0	0	1	0	-23	-27	0	-6	1	0	0	0	0
435	0	0	0	1	0	8	10	0	-7	0	0	0	0	-1
436	-2	0	0	1	1	-1	6	0	0	0	-8	0	0	0
437	0	0	0	0	0	15	18	0	-8	0	0	0	0	-1
438	-4	0	0	0	0	-11	-8	0	-8	1	0	0	0	0
439	0	0	0	0	-1	30	22	0	-4	0	0	0	0	0
440	-1	0	0	0	0	14	19	0	-7	1	0	0	0	0
441	0	0	0	0	0	18	15	0	-6	0	0	0	0	0
442	-8	0	0	0	-1	-16	-24	0	-4	2	0	0	0	0
443	-1	0	0	0	0	5	7	0	-4	2	0	0	0	0
444	-1	0	0	0	0	-1	-3	0	-6	1	0	0	0	0
445	0	0	0	0	1	16	26	0	-4	1	0	0	0	0
446	0	0	0	1	0	3	5	0	-6	0	0	0	0	0
447	-6	0	0	0	0	-15	-17	0	-3	1	0	0	0	0
448	0	0	0	0	1	29	40	0	-6	1	0	0	0	0
449	-16	0	0	-2	-1	-46	-58	0	-3	10	0	0	0	0
450	0	0	0	-1	0	11	13	0	-7	0	0	0	0	0

451	-2	1	0	0	1	-2	7	0	-9	1	0	0	0	0

	196	197	198	199	200	201	202	203	204	205	206	207	208	209	\
0	-1	-10	-22	0	0	5	-1	0	0	0	1	14	22	0	
1	-1	-15	-25	0	0	4	0	0	0	0	0	8	12	0	
2	-2	-8	-28	0	0	1	-2	0	0	0	1	-9	-1	0	
3	-1	-23	-35	0	0	3	0	0	0	0	1	9	18	0	
4	-1	-7	-17	0	0	4	-1	0	0	0	1	8	16	0	
5	-2	-14	-39	0	0	1	-12	0	0	0	0	-38	-42	0	
6	0	-9	-14	0	-2	0	0	0	0	0	0	-3	-1	0	
7	0	-13	-17	0	0	0	0	0	0	0	0	-2	2	0	
8	-1	-7	-20	0	0	0	0	0	0	0	0	0	-3	1	
9	-1	-15	-24	0	0	0	-4	0	0	0	0	-10	-4	0	
10	-1	-9	-15	0	0	1	-1	0	0	0	0	-2	-4	0	
11	-1	-8	-23	0	0	4	0	0	0	0	0	8	13	0	
12	0	-10	-14	0	0	5	0	0	0	0	0	21	22	0	
13	-1	-22	-31	0	0	2	-5	0	0	0	0	-5	-4	0	
14	-2	-46	-59	0	0	3	0	0	0	0	1	4	9	0	
15	-1	-11	-24	0	0	1	0	0	0	0	0	5	8	0	
16	-1	-13	-26	0	-2	0	0	0	0	0	0	-5	-10	0	
17	0	-10	-14	0	0	0	0	0	0	0	0	0	1	0	
18	0	-11	-13	0	0	0	-2	0	0	0	0	-2	2	0	
19	-1	-20	-33	0	0	7	0	0	0	0	0	22	28	0	
20	-2	-13	-40	0	0	1	0	0	0	0	1	4	14	0	
21	-1	-12	-18	0	-3	0	0	0	0	0	0	-7	-9	0	
22	-1	-22	-30	0	0	2	-2	0	0	0	0	0	0	0	
23	0	-18	-22	0	0	4	0	0	0	0	0	12	15	0	
24	-1	-24	-35	0	-1	1	0	0	0	0	1	0	7	0	
25	-1	-21	-31	0	-1	8	0	0	0	0	-1	31	13	0	
26	-1	-10	-22	0	0	0	-3	0	0	0	0	-11	-9	0	
27	-2	-16	-33	0	0	2	0	0	0	0	0	14	20	0	
28	0	-27	-29	0	0	9	0	0	0	0	-1	30	7	0	
29	1	-12	6	-1	0	11	0	0	0	0	-1	35	14	0	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	-2	-21	-36	0	-2	1	0	0	0	0	0	-1	1	0	
423	-1	-8	-23	0	0	2	0	0	0	0	0	8	11	0	
424	-3	-10	-50	-1	0	7	0	0	0	0	-3	24	-14	2	
425	-2	-22	-39	0	0	1	0	0	0	0	1	3	12	0	
426	-1	-13	-22	0	0	1	0	0	0	0	0	5	10	0	
427	0	4	-1	0	0	1	0	0	0	0	0	-1	3	0	
428	0	-17	-19	0	0	2	0	0	0	0	0	6	5	0	
429	-1	-14	-23	0	0	1	-5	0	0	0	0	-11	-10	0	
430	-1	-5	-19	1	0	4	-9	0	0	0	1	-23	-6	0	
431	-1	-12	-20	0	0	2	-1	0	0	0	0	2	4	0	
432	-2	-6	-26	0	0	2	0	0	0	0	0	9	12	0	
433	0	4	3	0	0	6	0	0	0	0	0	17	14	0	
434	-1	-11	-25	0	0	5	0	0	0	0	1	20	29	0	
435	-1	-28	-34	0	0	1	-1	0	0	0	0	1	5	0	

436	-2	-18	-34	0	0	3	0	0	0	0	0	10	11	0
437	-1	-35	-45	0	0	1	-2	0	0	0	0	-2	0	0
438	0	-17	-10	0	0	5	0	0	0	0	0	19	12	0
439	-1	-14	-19	0	0	1	-4	0	0	0	1	-14	-7	0
440	-1	-17	-32	0	0	0	0	0	0	0	0	0	3	-1
441	-1	-15	-22	0	0	0	0	0	0	0	0	0	5	0
442	-1	-5	-12	0	-1	7	0	0	0	0	1	17	26	0
443	0	-8	-10	0	0	0	0	0	0	0	0	0	1	0
444	-2	-10	-31	0	0	2	0	0	0	0	1	5	16	0
445	-1	-4	-15	0	-2	0	0	0	0	0	0	-6	-8	0
446	-2	-17	-30	0	0	2	0	0	0	0	0	3	7	0
447	0	-5	-10	0	0	6	0	0	0	0	0	16	21	0
448	-1	-14	-27	0	-3	0	0	0	0	0	0	-12	-14	0
449	-1	18	10	0	-1	10	-1	0	0	2	1	24	38	1
450	-2	-27	-43	0	0	1	0	0	0	0	1	3	14	1
451	-1	-20	-27	0	0	6	-1	0	0	0	0	8	4	0

	210	211	212	213	214	215	216	217	218	219	220	221	222	223	\
0	-2	0	0	0	0	1	0	-4	-2	0	-6	0	0	0	
1	0	2	0	0	0	0	0	6	11	0	0	1	-8	0	
2	0	4	0	0	0	0	1	31	42	0	0	0	-3	6	
3	0	5	-2	0	0	0	0	9	12	1	-6	0	0	0	
4	-1	0	0	0	0	1	0	-3	-1	0	-5	0	0	0	
5	-1	19	0	0	0	1	3	40	65	0	0	6	-24	0	
6	0	6	0	0	0	0	0	14	17	1	0	1	-11	0	
7	0	6	-1	0	0	0	0	14	16	0	0	0	-7	0	
8	0	4	0	0	0	1	2	7	22	0	0	0	-5	0	
9	0	8	0	0	0	0	0	26	30	0	0	1	-5	1	
10	0	4	0	0	0	1	1	18	25	0	0	0	-8	0	
11	0	1	0	0	0	0	1	0	10	0	0	0	-4	0	
12	-2	0	0	0	0	0	0	-10	-7	0	0	0	-5	1	
13	-1	13	0	0	0	0	1	27	34	0	0	3	-7	0	
14	0	8	0	0	0	0	1	33	41	0	0	3	-10	0	
15	0	5	-1	0	0	0	1	7	17	1	0	1	-13	0	
16	0	8	-1	0	0	1	2	19	36	1	0	0	-8	1	
17	0	4	0	0	0	0	0	10	12	0	-10	0	0	0	
18	0	3	0	0	0	0	0	10	8	1	-9	0	0	0	
19	0	0	-2	0	0	0	0	-6	-1	0	-4	1	0	0	
20	0	5	-1	0	0	0	1	11	26	0	0	2	-6	0	
21	0	7	-1	0	0	1	1	18	26	0	0	2	-4	0	
22	0	6	0	0	0	0	1	21	28	0	0	1	-5	0	
23	0	2	-2	0	0	0	0	0	1	0	0	2	-7	0	
24	0	8	-1	0	0	0	0	21	24	0	0	1	-10	0	
25	0	1	-7	0	0	0	2	-19	0	2	-18	0	0	0	
26	0	8	0	0	0	1	1	20	31	0	0	1	-9	1	
27	0	6	-2	0	0	0	1	3	15	1	0	1	-11	2	
28	0	0	-2	0	0	0	0	-6	-18	0	-7	0	0	0	
29	-5	0	0	0	0	0	0	-24	-16	1	0	0	-13	0	

..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	10	-2	0	0	0	2	23	35	0	0	1	-9	0
423	0	2	-3	0	0	1	1	-2	11	0	-3	0	0	0
424	0	4	-10	0	0	0	7	-14	62	2	0	0	-20	0
425	0	5	0	0	0	0	1	17	24	1	0	1	-11	0
426	0	4	0	0	0	0	0	9	14	0	0	0	-7	0
427	0	3	-2	0	0	0	0	-4	-2	0	0	1	-4	5
428	0	2	0	0	0	0	0	6	9	0	0	0	-9	0
429	0	7	0	0	0	0	1	23	32	1	0	1	-3	8
430	-3	16	-1	0	0	0	-1	14	3	-1	0	4	-8	4
431	0	3	0	0	0	0	0	12	18	0	0	1	-7	0
432	0	3	-4	0	0	1	2	-3	13	0	0	0	-5	0
433	0	0	-8	0	0	0	0	-19	-16	0	-3	0	0	0
434	0	2	-5	0	0	1	0	-9	-5	1	0	2	-15	0
435	0	6	0	0	0	1	0	17	19	0	0	0	-6	0
436	0	5	-1	0	0	1	2	8	22	0	0	3	-14	0
437	0	7	0	0	0	1	1	27	34	0	0	0	-7	0
438	0	4	-3	0	0	0	0	1	0	0	0	1	-10	0
439	0	7	0	0	0	0	0	33	34	0	0	1	-5	0
440	0	8	0	0	0	0	1	22	32	0	0	2	-9	0
441	0	6	0	0	0	0	0	19	20	0	0	2	-10	0
442	0	2	-5	0	0	0	0	-9	-10	0	0	0	-1	0
443	0	5	-2	0	0	0	0	6	7	0	0	2	-1	2
444	0	4	-1	0	0	0	1	5	14	0	0	0	-8	0
445	0	6	0	0	0	0	1	12	22	0	0	1	-5	0
446	0	4	0	0	0	1	1	12	22	0	0	0	-7	0
447	0	0	-4	0	0	0	0	-11	-11	0	-6	0	0	0
448	0	9	0	0	0	0	1	36	49	1	-4	2	0	0
449	0	1	-15	0	0	-2	0	-44	-49	-1	0	0	-1	12
450	0	6	0	0	0	0	0	20	26	1	0	2	-12	0
451	0	2	0	0	0	0	1	10	22	0	0	2	-3	0

	224	225	226	227	228	229	230	231	232	233	234	235	236	237	\
0	0	0	0	-24	-29	0	0	2	-6	0	0	0	2	-12	
1	0	0	0	-21	-26	0	0	2	-7	0	0	0	2	-16	
2	0	0	-3	18	-13	0	0	2	-4	7	0	0	-2	20	
3	0	0	0	-18	-22	2	0	1	-6	0	0	0	2	-12	
4	0	0	0	-25	-30	0	0	1	-6	0	0	0	2	-12	
5	0	-1	0	-61	-59	0	0	11	-43	0	0	0	3	-111	
6	0	0	1	-30	-13	1	0	2	-17	0	0	0	4	-46	
7	0	0	0	-15	-16	0	0	0	-8	0	0	0	2	-20	
8	0	0	1	-14	-5	0	0	1	-6	0	0	0	2	-13	
9	0	0	0	-5	2	0	0	4	-8	0	0	0	3	-10	
10	0	0	-1	-26	-39	0	0	2	-12	0	0	0	-2	-35	
11	0	0	-1	-9	-27	0	0	3	-6	0	0	0	0	-10	
12	0	0	0	-7	-11	1	0	2	-3	0	0	0	0	-1	
13	0	0	0	-9	-12	2	0	8	-8	0	0	0	1	11	
14	0	0	0	-20	-23	1	0	5	-5	0	0	0	3	0	

15	0	0	0	-28	-21	1	0	2	-11	0	0	0	4	-22
16	0	0	0	-18	-22	2	0	0	-9	3	0	0	0	-19
17	0	0	0	-31	-24	0	-6	0	0	0	0	0	0	-20
18	0	0	2	-32	-2	2	0	0	-13	0	0	0	6	-41
19	0	0	0	-11	-17	0	0	4	-2	0	0	0	1	7
20	0	0	-2	-19	-41	0	0	4	-7	0	0	0	2	-8
21	0	0	0	-6	0	1	0	6	-9	2	0	0	3	-1
22	0	0	0	-7	-1	1	0	5	-7	0	0	0	2	0
23	0	0	0	-20	-28	1	0	6	-10	0	0	0	0	-13
24	0	0	-1	-23	-43	1	0	2	-10	0	0	0	1	-20
25	0	0	5	-69	-8	1	0	3	-16	0	0	1	4	-50
26	0	-2	0	-18	-12	1	0	1	-11	0	0	-1	2	-25
27	0	0	-2	-18	-38	1	0	2	-7	0	0	0	1	-12
28	0	0	2	-27	-4	0	-4	0	0	0	0	0	2	-16
29	0	0	1	-33	-5	0	0	0	-8	0	0	0	1	-19
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	0	0	-1	-24	-36	0	0	3	-12	0	0	0	2	-26
423	0	0	0	-14	-12	0	0	2	-7	0	0	0	2	-15
424	0	-1	-1	-92	-107	5	0	3	-39	0	0	0	4	-151
425	0	0	0	-29	-31	3	0	3	-12	0	0	0	6	-21
426	0	0	0	-15	-24	1	0	2	-8	0	0	0	2	-18
427	0	0	-1	17	-7	1	0	2	-9	0	0	0	1	-21
428	0	0	1	-28	-14	0	0	1	-6	0	0	0	0	-20
429	0	0	1	18	29	1	0	4	-4	0	0	0	2	-1
430	0	1	-4	10	-45	0	0	11	-14	1	0	1	-5	4
431	0	0	0	-17	-18	0	0	4	-10	0	0	0	3	-20
432	0	-1	-2	-7	-35	0	0	2	-3	5	0	0	-1	12
433	0	-1	0	-10	-11	0	-4	0	0	0	0	0	0	-9
434	0	0	1	-44	-26	3	0	2	-15	0	0	0	7	-31
435	0	0	0	-16	-21	1	0	3	-7	0	0	0	1	-3
436	0	0	-1	-31	-42	1	0	3	-4	0	0	0	2	-2
437	0	0	0	-21	-31	1	0	2	-13	0	0	0	2	-37
438	0	0	1	-18	-8	0	0	2	-6	0	0	0	2	-7
439	0	0	-1	-10	-23	0	0	3	-10	0	0	0	1	-25
440	0	0	0	-25	-32	0	0	4	-9	0	0	0	3	-15
441	0	0	0	-25	-30	0	0	3	-12	0	0	0	3	-21
442	0	0	0	-3	-10	1	0	4	-1	0	0	0	0	6
443	0	0	0	7	8	0	0	3	-1	1	0	0	1	7
444	0	0	0	-22	-19	2	0	2	-13	0	0	0	6	-25
445	0	0	1	-13	0	0	0	1	-8	0	0	0	2	-23
446	0	0	-1	-22	-34	1	0	1	-7	0	0	0	3	-13
447	0	0	0	-18	-19	1	0	0	-8	0	0	0	1	-22
448	0	0	2	-5	21	1	0	3	-8	0	0	0	8	-14
449	-2	1	-2	23	0	-4	0	19	-6	0	0	3	-7	72
450	0	0	1	-28	-16	2	0	7	-14	0	0	0	6	-16
451	0	0	1	-3	4	0	0	11	-6	0	0	0	2	13

	238	239	240	241	242	243	244	245	246	247	248	249	250	251	\

0	15	0	0	8	-10	0	0	0	5	-3	52	0	0	15
1	1	0	0	5	-7	0	0	0	3	-5	27	0	0	9
2	-2	0	0	5	-4	4	0	0	0	20	23	0	0	10
3	18	0	0	9	-7	0	0	0	4	7	51	0	0	15
4	8	0	0	8	-10	0	0	-1	4	-4	43	0	0	15
5	-95	2	0	19	-48	0	0	1	8	-114	-72	2	0	31
6	-1	1	0	3	-11	0	0	0	4	-19	21	0	0	7
7	4	0	0	2	-9	0	0	0	3	-16	21	0	0	6
8	10	1	0	2	-10	0	0	0	6	-19	43	0	0	7
9	25	0	0	4	-7	0	0	1	4	-8	27	0	0	7
10	-54	0	-2	11	-18	0	0	0	-5	-34	-76	-1	-1	16
11	-17	0	0	6	-9	0	0	0	0	-8	-5	0	0	3
12	4	0	0	5	-5	0	0	0	1	-1	7	0	0	8
13	22	1	0	11	-3	0	0	0	4	23	63	0	0	20
14	35	0	0	8	-2	0	0	0	3	19	52	0	0	12
15	33	1	0	5	-3	0	0	0	7	10	107	0	0	9
16	-12	1	0	1	-11	0	0	0	4	-29	10	0	0	7
17	-12	0	0	1	-4	0	0	0	1	-6	11	0	0	8
18	24	1	0	5	-17	0	0	0	7	-34	50	0	0	11
19	20	0	0	14	-2	0	0	0	4	33	67	0	0	18
20	19	0	0	7	-6	0	0	0	5	6	67	0	0	11
21	33	1	0	14	-22	0	0	1	7	-21	49	0	0	18
22	23	0	0	8	-7	0	0	0	3	8	39	0	0	8
23	-2	0	0	10	-10	0	0	0	1	-10	8	0	0	10
24	-8	0	0	4	-8	0	0	0	2	-7	29	0	0	12
25	-3	1	0	9	-22	0	0	1	6	-48	23	0	0	12
26	2	3	0	5	-14	0	0	1	8	-25	59	1	0	18
27	0	0	0	5	-3	0	0	0	3	11	45	0	0	11
28	8	0	0	6	-7	0	0	0	0	-4	0	0	0	9
29	0	-1	0	4	-6	0	0	0	-1	-8	-33	0	0	7
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	-5	0	0	5	-4	0	0	0	2	7	32	0	0	13
423	5	0	0	5	-11	0	0	0	2	-14	7	0	0	10
424	-85	10	0	6	-46	0	0	0	10	-184	-24	6	0	5
425	50	2	0	3	-5	0	0	0	6	0	74	0	0	8
426	3	0	0	3	-4	0	0	0	4	-2	47	0	0	11
427	-3	1	0	9	-18	0	0	0	2	-56	-23	1	0	15
428	-10	0	0	2	-8	0	0	0	0	-19	-8	0	0	9
429	17	1	0	8	-3	0	0	0	2	24	43	0	0	12
430	-50	0	0	14	-8	0	0	1	-5	-16	-88	0	0	17
431	13	0	0	6	-9	0	0	0	5	-2	47	-1	0	20
432	3	1	0	5	-9	0	0	0	2	-10	13	1	0	11
433	-12	0	-10	0	0	0	0	0	0	-32	-24	0	0	1
434	64	3	0	3	-13	0	0	0	6	-19	67	1	0	9
435	10	0	0	10	-7	0	0	0	2	17	38	0	0	10
436	23	1	0	8	-2	0	0	0	5	18	64	0	0	13
437	-7	1	0	4	-13	0	0	0	3	-28	12	0	0	8
438	18	0	0	4	-6	0	0	0	5	0	46	0	0	14

439	-15	0	0	7	-9	0	0	0	3	-9	19	0	0	10
440	16	0	0	7	-10	0	0	0	6	-10	51	0	0	16
441	11	0	0	7	-2	0	0	0	4	18	63	0	0	17
442	16	0	0	7	-4	0	0	0	1	10	24	0	0	5
443	17	0	0	5	-6	0	0	1	3	-4	18	0	0	6
444	54	2	0	4	-4	0	0	0	7	2	99	0	0	7
445	-1	0	0	3	-11	0	0	0	4	-27	12	0	0	5
446	22	0	0	8	-4	0	0	0	6	26	89	0	0	14
447	-4	1	0	1	-9	0	0	0	2	-22	3	0	0	2
448	75	1	0	12	-5	0	0	0	10	27	137	0	0	22
449	12	0	0	18	-34	0	0	1	-8	-75	-146	0	0	20
450	63	2	0	8	-7	0	0	0	7	3	94	0	0	11
451	33	0	0	20	-6	0	0	0	2	38	60	-1	0	23

	252	253	254	255	256	257	258	259	260	261	262	263	264	265	\
0	-8	0	0	0	5	17	70	0	0	13	-4	0	0	0	
1	-5	0	0	0	2	11	34	0	0	11	-2	0	0	0	
2	-5	0	0	0	2	-3	20	1	0	11	-3	0	0	0	
3	-5	0	0	0	3	28	63	0	0	15	-3	0	0	0	
4	-7	0	0	0	4	16	63	0	0	9	0	0	0	0	
5	-25	0	0	0	5	29	85	0	0	19	-11	0	0	0	
6	-6	0	0	0	1	1	15	0	0	7	-2	0	0	0	
7	-4	0	0	0	1	4	14	0	0	8	-2	0	0	0	
8	-7	0	0	0	6	5	62	0	0	9	-3	0	0	0	
9	-3	0	0	1	1	13	22	0	0	10	-2	0	0	1	
10	-13	0	0	0	-3	-12	-37	0	0	12	-5	0	0	0	
11	-5	0	0	0	0	-8	-6	0	0	4	-4	0	0	0	
12	-5	0	0	0	1	4	13	0	0	7	-4	0	0	0	
13	-2	0	0	0	5	61	103	0	-1	19	-1	0	0	0	
14	-1	0	0	0	1	29	47	0	0	13	0	0	0	0	
15	-2	0	0	0	3	19	45	0	0	9	-1	0	0	0	
16	-3	0	0	0	4	16	60	0	0	11	-2	0	0	0	
17	-2	0	0	0	0	14	20	0	0	8	-1	0	0	0	
18	-9	0	0	0	3	-1	26	0	0	8	-1	0	0	0	
19	-2	0	0	0	3	54	86	0	0	9	-1	0	0	0	
20	-4	0	0	0	4	21	62	0	0	11	-2	0	0	0	
21	-17	0	0	1	2	-8	15	0	0	12	-5	0	0	1	
22	-3	0	0	0	2	17	39	0	0	9	-2	0	0	0	
23	-6	0	0	0	0	9	18	0	0	9	-3	0	0	0	
24	-4	0	0	0	1	20	37	0	0	15	-2	0	0	0	
25	-15	0	0	0	3	-30	-1	0	0	9	-4	0	0	0	
26	-5	0	0	1	7	45	129	0	0	21	-2	0	0	1	
27	-3	0	0	0	3	19	49	0	0	13	-2	0	0	0	
28	-6	0	0	0	-1	2	-14	0	0	6	-2	0	0	0	
29	-7	0	0	0	-1	-9	-20	0	0	6	-6	0	0	0	
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
422	-4	0	0	0	2	31	49	0	0	15	-3	0	0	0	
423	-10	0	0	0	1	-9	6	0	0	11	-7	0	0	1	

424	-30	0	0	0	8	-124	2	3	0	4	-8	0	0	0
425	-4	0	0	0	4	13	56	0	0	11	-2	0	0	0
426	-4	0	0	0	5	23	74	0	0	12	-2	0	0	0
427	-15	0	0	0	1	-26	-6	0	0	10	-6	0	0	0
428	-5	0	0	0	0	8	12	0	0	9	-1	0	0	0
429	-2	0	0	1	-4	37	-4	0	0	11	-1	0	0	0
430	-7	0	0	0	0	17	24	0	-3	29	-7	0	0	0
431	-7	0	0	0	2	34	57	0	0	14	-2	0	0	0
432	-14	0	0	0	6	-6	79	0	0	23	-13	0	0	0
433	-8	0	0	0	0	-24	-25	0	0	2	-6	0	0	0
434	-9	0	0	0	0	4	2	0	0	10	-4	0	0	0
435	-2	0	0	0	1	23	33	0	0	11	-1	0	0	0
436	-2	0	0	0	4	28	62	0	0	12	-1	0	0	0
437	-4	0	0	1	1	5	15	0	0	11	-2	0	0	1
438	-5	0	0	0	3	23	50	0	0	16	-3	0	0	0
439	-5	0	0	0	2	8	25	0	0	9	-1	0	0	0
440	-8	0	0	0	4	24	65	-1	0	23	-6	0	0	0
441	-2	0	0	0	2	57	82	0	0	16	-1	0	0	0
442	-5	0	0	0	0	2	10	0	0	6	-6	0	0	0
443	-7	0	0	1	3	5	37	0	0	16	-4	0	0	0
444	-3	0	0	0	3	12	49	0	0	9	-2	0	0	0
445	-9	0	0	0	3	-11	17	0	0	8	-5	0	0	0
446	-4	0	0	0	5	28	84	0	0	9	-1	0	0	0
447	-10	0	0	0	1	-20	-9	0	0	4	-8	0	0	0
448	-3	0	0	0	5	69	129	0	0	21	-2	0	0	0
449	-36	0	0	1	-8	-71	-161	0	0	22	-30	0	0	1
450	-6	0	0	0	3	17	56	0	0	15	-3	0	0	0
451	-6	0	0	0	2	44	60	0	0	12	-2	0	0	0

	266	267	268	269	270	271	272	273	274	275	276	277	278	279
0	3	25	62	0	0	9	0	0	0	0	2	23	49	8
1	2	21	43	0	0	8	0	0	0	0	2	20	38	6
2	3	11	48	0	0	9	-2	0	0	0	3	12	49	10
3	3	36	68	0	0	12	-2	0	0	0	2	34	61	1
4	2	21	48	0	0	13	-3	0	0	0	3	25	62	7
5	3	20	49	0	0	12	-2	0	0	0	2	13	31	14
6	1	9	18	0	0	6	0	0	0	0	1	14	20	1
7	0	14	20	0	0	8	-1	0	0	0	0	15	19	1
8	3	15	48	0	0	7	-1	0	0	0	2	12	30	1
9	1	23	29	0	0	10	-1	0	0	0	0	20	25	10
10	0	6	3	0	0	9	-2	0	0	0	0	12	19	3
11	0	-1	5	0	0	4	-2	0	0	0	1	4	17	1
12	0	4	8	0	0	6	-2	0	0	0	0	8	12	10
13	3	47	79	0	0	12	0	0	0	0	2	28	48	6
14	1	29	46	0	0	12	0	0	0	0	1	39	54	1
15	2	20	41	0	0	7	0	0	0	0	1	17	31	1
16	2	25	47	0	0	9	-1	0	0	0	2	19	41	10
17	0	16	19	0	0	6	0	0	0	0	0	17	20	1

18	1	16	25	0	0	5	0	0	0	0	0	18	22	1
19	2	28	43	0	0	7	0	0	0	0	1	25	38	1
20	4	18	64	0	0	9	-1	0	0	0	3	17	54	1
21	1	10	21	0	0	8	-1	0	0	0	1	11	19	1
22	2	19	37	0	0	8	-1	0	0	0	1	19	34	1
23	1	16	28	0	0	6	0	0	0	0	1	18	28	1
24	2	35	57	0	0	13	0	0	0	0	2	35	57	1
25	2	5	22	0	0	6	0	0	0	0	1	20	29	16
26	4	54	98	0	0	15	-1	0	0	0	2	44	68	14
27	3	25	57	0	0	12	-1	0	0	0	3	25	54	10
28	-1	11	-3	0	0	5	0	0	0	0	-1	17	3	2
29	-1	-5	-16	0	0	7	-3	0	0	0	-1	3	-6	2
..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
422	3	33	57	0	0	14	-2	0	0	0	3	32	56	1
423	1	4	18	0	0	9	-3	0	0	1	1	9	23	1
424	7	-24	82	0	0	10	-2	0	0	1	5	36	115	9
425	3	24	60	0	0	10	0	0	0	0	3	24	52	1
426	3	24	59	0	0	8	0	0	0	0	2	20	40	1
427	1	-9	2	0	0	6	-3	0	0	0	0	-2	6	10
428	0	20	22	0	0	6	0	0	0	0	0	23	26	1
429	1	32	45	0	0	11	-2	0	0	0	3	16	49	16
430	1	17	30	0	-3	19	-4	0	0	0	1	12	25	10
431	1	30	42	0	0	8	0	0	0	0	1	20	29	6
432	8	18	127	0	0	17	-7	0	0	0	5	15	84	10
433	0	-13	-16	0	0	2	-5	0	0	0	0	-7	-8	3
434	-1	11	1	0	0	10	0	0	0	0	0	24	25	1
435	1	25	37	0	0	9	0	0	0	0	1	24	33	1
436	3	24	49	0	0	9	0	0	0	0	2	19	36	1
437	1	19	35	0	0	10	0	0	0	1	2	25	43	1
438	1	33	41	0	0	13	-1	0	0	0	0	30	35	1
439	1	17	30	0	0	8	0	0	0	0	1	21	33	1
440	2	30	53	-1	0	16	-3	0	0	0	1	24	41	1
441	2	54	75	0	0	11	0	0	0	0	1	40	55	1
442	0	-4	2	0	0	6	-6	0	0	0	0	-3	0	1
443	2	33	58	0	0	10	-2	0	0	0	1	17	29	10
444	3	18	50	0	0	7	-1	0	0	0	2	14	37	1
445	1	3	17	0	0	7	-2	0	0	0	1	8	17	1
446	3	20	49	0	0	7	0	0	0	0	2	17	39	1
447	1	-8	0	0	0	4	-5	0	0	0	0	-4	0	1
448	3	50	82	0	0	15	-1	0	0	0	2	38	62	10
449	-2	-39	-63	1	0	16	-28	0	0	1	1	-44	-33	2
450	3	29	61	0	0	12	0	0	0	0	2	25	46	1
451	1	26	38	0	0	10	-1	0	0	0	1	21	32	1

[452 rows x 280 columns]

still to do Q5(d)

In [ ]:

In [ ]:

2 Written Questions

1(a) P(X=1)= 1/4 + 1/3 = 7/12
P(X=1 | Y=1) = (1/3)/(1/2) = 3/2

In [ ]: