

Import Libraries:

```
import pandas as pd
```

Import Data:

```
df = pd.read_excel("/content/walmart_amazon_final.xlsx")
```

see top 5 heads of data

```
df.head(5)
```

	WALMART_NAME	WALMART_URL	AMAZON_NAME	AMAZON_URL	WALMART_PRICE_CURRENT	AMAZON_PRICE_CURRENT
0	Easter Bunny Wood Door Sign - Home Decor - 1 P...	https://www.walmart.com/ip/Easter-Bunny-Wood-D...	Easter Bunny Wood Door Sign - Home Decor - 1 P...	https://www.amazon.com/dp/B083MQKGSR	14.29	
1	Kinder Bueno Milk Chocolate and Hazelnut Cream...	https://www.walmart.com/ip/Kinder-Bueno-Milk-C...	Kinder Bueno Milk Chocolate and Hazelnut Cream...	https://www.amazon.com/dp/B08Z7J19JR	3.58	
2	8" Brown Ivory and Orange Standing Duck Spring...	https://www.walmart.com/ip/8-Brown-Ivory-and-O...	8" Brown Ivory and Orange Standing Duck Spring...	https://www.amazon.com/dp/B07YMBP113	18.99	
3	Caffoz 58" Home Entertainment Center Wood Medi...	https://www.walmart.com/ip/Caffoz-58-Home-Ente...	Caffoz 58" Home Entertainment Center Wood Medi...	https://www.amazon.com/dp/B0BGYW1BDD	109.78	
4	Novogratz Vler Coffee Table, Light Oak	https://www.walmart.com/ip/Novogratz-Vler-Cof...	Novogratz Vler Coffee Table, Light Oak	https://www.amazon.com/dp/B0BR65517B	106.46	

see the shape of data:

```
df.shape
```

```
(51, 9)
```

check the columns of data:

```
df.columns
```

```
Index(['WALMART_NAME', 'WALMART_URL', 'AMAZON_NAME', 'AMAZON_URL',  
      'WALMART_PRICE_CURRENT', 'AMAZON_PRICE_CURRENT', 'SCORE', 'DEPARTMENT',  
      'CATEGORY'],  
      dtype='object')
```

drop the columns which we don't need

```
df.drop(['WALMART_URL', 'AMAZON_URL'], axis=1, inplace=True)  
df.head(2)
```

	WALMART_NAME	AMAZON_NAME	WALMART_PRICE_CURRENT	AMAZON_PRICE_CURRENT	SCORE	DEPARTMENT	CATEGORY
0	Easter Bunny Wood Door Sign - Home Decor - 1 P...	Easter Bunny Wood Door Sign - Home Decor - 1 P...	14.29	15.57	1.0	Easter	Easter Top Picks
1	Kinder Bueno Milk Chocolate and Hazelnut Cream...	Kinder Bueno Milk Chocolate and Hazelnut Cream...	3.58	3.58	1.0	Easter	Easter Top Picks

see the null values in the data

```
df.isnull().sum()
```

```
WALMART_NAME      1
AMAZON_NAME       2
WALMART_PRICE_CURRENT  2
AMAZON_PRICE_CURRENT  2
SCORE             2
DEPARTMENT        2
CATEGORY          2
dtype: int64
```

there is, some missing or null values in the columns which we need to require treatment for them.

we treated null values here by filling the values with mean

```
df['WALMART_PRICE_CURRENT'].fillna(df['WALMART_PRICE_CURRENT'].mean(), inplace=True)
df['AMAZON_PRICE_CURRENT'].fillna(df['AMAZON_PRICE_CURRENT'].mean(), inplace=True)
df['SCORE'].fillna(df['SCORE'].mean(), inplace=True)
```

```
mode_value = df['DEPARTMENT'].mode()[0]
df['DEPARTMENT'].fillna(mode_value, inplace=True)
mode_value = df['DEPARTMENT'].mode()[0]
df['CATEGORY'].fillna(mode_value, inplace=True)
mode_value = df['WALMART_NAME'].mode()[0]
df['WALMART_NAME'].fillna(mode_value, inplace=True)
mode_value = df['AMAZON_NAME'].mode()[0]
df['AMAZON_NAME'].fillna(mode_value, inplace=True)
```

check the null values again after treating them

```
df.isnull().sum()
```

```
WALMART_NAME      0
AMAZON_NAME       0
WALMART_PRICE_CURRENT  0
AMAZON_PRICE_CURRENT  0
SCORE             0
DEPARTMENT        0
CATEGORY          0
dtype: int64
```

```
#drops_columns=['WALMART_URL','AMAZON_URL']
#df.drop(columns=drops_columns, axis=1, inplace=True)
#df.head(2) # inplace =True (must be there otw code will not work)
```

How many unique products are listed on Walmart and Amazon?

```
df['AMAZON_NAME'].nunique()
```

```
49
```

there is 49 unique names in 'AMAZON_NAME' column

```
df['WALMART_NAME'].nunique()
```

```
50
```

```
df.head(1)
```

	WALMART_NAME	AMAZON_NAME	WALMART_PRICE_CURRENT	AMAZON_PRICE_CURRENT	SCORE	DEPARTMENT	CATEGORY
0	Easter Bunny Wood Door Sign - Home Decor - 1 P...	Easter Bunny Wood Door Sign - Home Decor - 1 P...	14.29	15.57	1.0	Easter	Easter Top Picks

there is 50 unique names in 'WALMART_NAME' column

what is the total sum of prices for each unique 'WALMART_NAME' and 'AMAZON_NAME

```
df.groupby('WALMART_NAME')['WALMART_PRICE_CURRENT'].sum().reset_index().sort_values(by='WALMART_PRICE_CURRENT' )
```

	WALMART_NAME	WALMART_PRICE_CURRENT
35	McCormick Air Fryer Loaded Seasoning Mix, 1.25 oz	1.480000
31	Kinder Bueno Milk Chocolate and Hazelnut Cream...	3.580000
14	Coghlan's Featherweight Mirror	6.670000
25	Evriholder Lemon and Lime Squeezer, Yellow or ...	7.000000
42	Ovente French Coffee Press 12 Ounce Espresso M...	11.990000
27	Gallery Solutions 8x10 Black Wall or Tabletop ...	14.200000
24	Easter Bunny Wood Door Sign - Home Decor - 1 P...	14.290000
1	10 Strawberry Street Two Tone Coupe 5.5?€?/24 ...	16.910000
47	Smart Design Undershelf Storage Basket - Small...	17.490000
7	Americanflat 12x18 Poster Frame in Silver - Co...	17.620000
3	8" Brown Ivory and Orange Standing Duck Spring...	18.990000
36	Mind Reader 3 Tier Letter Tray Document Sorter...	19.590000
2	10 Strawberry Street Two Tone Coupe 8.5?€?/36 ...	24.490000
11	Arden Selections Outdoor Toss Pillow (2 Pack) ...	24.990000
5	Alera ALEFW601416BL Compact 15.25 in. x 12.38 ...	26.110000
26	Furinno Simple Design Coffee Table, Espresso	27.760000
33	Lavish Home 4-Tier Wood Folding Corner Display...	28.030000
43	Patton Wall Decor 20" Black and Gold Metal Cut...	30.830000
19	Convenience Concepts Designs2Go 4 Tier Corner ...	31.980000
4	AcuRite Intelli-Time Digital Alarm Clock for B...	32.790000
8	Americanflat 20x26 Puzzle Frame with Mat for 1...	34.990000
6	Alera ALEFW601424BL 24 in. x 14 in. x 21 in. S...	36.050000
32	KitchenAid Variable Speed Corded Hand Blender ...	50.990000
22	Convenience Concepts Xtra Storage 5 Tier Foldi...	53.540000
29	Instapoints 5 Piece Gallery Wall Picture Frame...	54.440000
41	Ovente Air Fryer 3.2 QT, 1400W with Adjustable...	55.980000
46	Signature Design by Ashley Media Modern Geomet...	59.650000
20	Convenience Concepts Designs2Go Highboy TV Sta...	89.000000
40	Ovente 8.5" Hardwired Lighted Wall Mount Make...	89.940000
15	Contact US to Get 5000+ products comparisons	97.069388
16	Convenience Concepts American Heritage Bookshe...	105.200000
21	Convenience Concepts Oxford Coffee Table with ...	105.580000
39	Novogratz Voler Coffee Table, Light Oak	106.460000
13	Caffoz 58" Home Entertainment Center Wood Medi...	109.780000
17	Convenience Concepts American Heritage Coffee ...	117.990000
0	10 Strawberry Street Simply White 36 Oz Pasta/...	119.059388
18	Convenience Concepts American Heritage Round C...	127.000000
38	Novogratz Kelly Accent Cabinet, White/Taupe	133.750000
28	GreenPan Swift Healthy Ceramic Nonstick, 12 Pi...	134.990000
10	Ameriwood Home Pursuit Mobile File Cabinet, Ch...	145.230000
45	Sceptre 40" Class FHD (1080P) LED TV (X405BV-FSR)	148.000000
23	DHP Jett Junior Twin Metal Loft Bed, Black	150.000000
30	Kate and Laurel Cates Farmhouse Wood Framed Wa...	157.750000
37	Novogratz Kelly 5 Drawer Dresser, Faux Rattan ...	170.770000
44	Prepac Space-Saving Entryway Organizer with Sh...	178.990000
12	Bohaus Alva Dresser (Brown - White)	180.990000

48	South Shore Fusion 5-Drawer Chest, Pure White	199.990000
49	South Shore Step One Essential 5-Drawer Chest,...	201.990000
9	Ameriwood Home Lamont Mantel Fireplace, White	330.390000
34	Lenovo ThinkCentre M70a Gen 3 11VL0040US Desk...	1028.190000

the total sum of the prices of each unique product the wallmart is starts from 1.48 to ends with 1028.19 rupees. McCormick Air Fryer Loaded Seasoning Mix, 1.25 oz products is the lowest prices.

```
df.groupby('AMAZON_NAME')['AMAZON_PRICE_CURRENT'].sum().reset_index().sort_values(by='AMAZON_PRICE_CURRENT' )
```

	AMAZON_NAME	AMAZON_PRICE_CURRENT
34	McCormick Air Fryer Loaded Seasoning Mix, 1.25 oz	1.490000
30	Kinder Bueno Milk Chocolate and Hazelnut Cream...	3.580000
14	Coghlan's Featherweight Mirror	6.170000
24	Evriholder Lemon and Lime Squeezer, Yellow or ...	9.990000
46	Smart Design Undershelf Storage Basket - Small...	11.990000
41	Ovente French Coffee Press 12 Ounce Espresso M...	11.990000
26	Gallery Solutions 8x10 Black Wall or Tabletop ...	14.200000
23	Easter Bunny Wood Door Sign - Home Decor - 1 P...	15.570000
1	10 Strawberry Street Two Tone Coupe 5.5?€/24 ...	16.910000
7	Americanflat 12x18 Poster Frame in Silver - Co...	17.620000
3	8" Brown Ivory and Orange Standing Duck Spring...	18.990000
35	Mind Reader 3 Tier Letter Tray Document Sorter...	19.590000
2	10 Strawberry Street Two Tone Coupe 8.5?€/36 ...	24.490000
11	Arden Selections Outdoor Toss Pillow (2 Pack) ...	24.990000
42	Patton Wall Decor 20" Black and Gold Metal Cut...	26.990000
5	Alera ALEFW601416BL Compact 15.25 in. x 12.38 ...	27.610000
32	Lavish Home 4-Tier Wood Folding Corner Display...	27.950000
25	Furinno Simple Design Coffee Table, Espresso	29.770000
4	AcuRite Intelli-Time Digital Alarm Clock for B...	32.790000
18	Convenience Concepts Designs2Go 4 Tier Corner ...	33.990000
8	Americanflat 20x26 Puzzle Frame with Mat for 1...	34.990000
6	Alera ALEFW601424BL 24 in. x 14 in. x 21 in. S...	37.670000
31	KitchenAid Variable Speed Corded Hand Blender ...	50.990000
28	Instapoints 5 Piece Gallery Wall Picture Frame...	54.440000
40	Ovente Air Fryer 3.2 QT, 1400W with Adjustable...	55.980000
21	Convenience Concepts Xtra Storage 5 Tier Foldi...	59.490000
45	Signature Design by Ashley Media Modern Geomet...	59.650000
19	Convenience Concepts Designs2Go Highboy TV Sta...	89.000000
39	Ovente 8.5" Hardwired Lighted Wall Mount Make...	89.940000
15	Convenience Concepts American Heritage Bookshe...	105.200000
20	Convenience Concepts Oxford Coffee Table with ...	105.580000
16	Convenience Concepts American Heritage Coffee ...	117.990000
38	Novogratz Voler Coffee Table, Light Oak	124.200000
17	Convenience Concepts American Heritage Round C...	127.000000
37	Novogratz Kelly Accent Cabinet, White/Taupe	133.750000
27	GreenPan Swift Healthy Ceramic Nonstick, 12 Pi...	134.990000
13	Caffoz 58" Home Entertainment Center Wood Medi...	142.720000
10	Ameriwood Home Pursuit Mobile File Cabinet, Ch...	145.230000
22	DHP Jett Junior Twin Metal Loft Bed, Black	150.000000
29	Kate and Laurel Cates Farmhouse Wood Framed Wa...	157.750000
36	Novogratz Kelly 5 Drawer Dresser, Faux Rattan ...	170.770000
43	Prepac Space-Saving Entryway Organizer with Sh...	178.990000
12	Boahaus Alva Dresser (Brown - White)	180.990000
47	South Shore Fusion 5-Drawer Chest, Pure White	199.990000
48	South Shore Step One Essential 5-Drawer Chest,...	201.370000
44	Sceptre 40" Class FHD (1080P) LED TV (X405BV-FSR)	207.000000

0	10 Strawberry Street Simply White 36 Oz Pasta/...	220.687551
9	Ameriwood Home Lamont Mantel Fireplace, White	330.390000
33	Lenovo ThinkCentre M70a Gen 3 11VL0040US Desk...	1023.370000

the total sum of the prices of each unique product the amazon is starts from 1.49 to ends with 1023.19 rupees. Lenovo ThinkCentre M70a Gen 3 11VL0040US Desktop is the products with highest prices

```
df.groupby('AMAZON_NAME')['AMAZON_PRICE_CURRENT'].sum().reset_index().sort_values(by='AMAZON_PRICE_CURRENT')
```

	AMAZON_NAME	AMAZON_PRICE_CURRENT
34	McCormick Air Fryer Loaded Seasoning Mix, 1.25 oz	1.490000
30	Kinder Bueno Milk Chocolate and Hazelnut Cream...	3.580000
14	Coghlan's Featherweight Mirror	6.170000
24	Evriholder Lemon and Lime Squeezer, Yellow or ...	9.990000
46	Smart Design Undershelf Storage Basket - Small...	11.990000
41	Ovente French Coffee Press 12 Ounce Espresso M...	11.990000
26	Gallery Solutions 8x10 Black Wall or Tabletop ...	14.200000
23	Easter Bunny Wood Door Sign - Home Decor - 1 P...	15.570000
1	10 Strawberry Street Two Tone Coupe 5.5?€/24 ...	16.910000
7	Americanflat 12x18 Poster Frame in Silver - Co...	17.620000
3	8" Brown Ivory and Orange Standing Duck Spring...	18.990000
35	Mind Reader 3 Tier Letter Tray Document Sorter...	19.590000
2	10 Strawberry Street Two Tone Coupe 8.5?€/36 ...	24.490000
11	Arden Selections Outdoor Toss Pillow (2 Pack) ...	24.990000
42	Patton Wall Decor 20" Black and Gold Metal Cut...	26.990000
5	Alera ALEFW601416BL Compact 15.25 in. x 12.38 ...	27.610000
32	Lavish Home 4-Tier Wood Folding Corner Display...	27.950000
25	Furinno Simple Design Coffee Table, Espresso	29.770000
4	AcuRite Intelli-Time Digital Alarm Clock for B...	32.790000
18	Convenience Concepts Designs2Go 4 Tier Corner ...	33.990000
8	Americanflat 20x26 Puzzle Frame with Mat for 1...	34.990000
6	Alera ALEFW601424BL 24 in. x 14 in. x 21 in. S...	37.670000
31	KitchenAid Variable Speed Corded Hand Blender ...	50.990000
28	Instapoints 5 Piece Gallery Wall Picture Frame...	54.440000
40	Ovente Air Fryer 3.2 QT, 1400W with Adjustable...	55.980000
21	Convenience Concepts Xtra Storage 5 Tier Foldi...	59.490000
45	Signature Design by Ashley Media Modern Geomet...	59.650000
19	Convenience Concepts Designs2Go Highboy TV Sta...	89.000000
39	Ovente 8.5" Hardwired Lighted Wall Mount Make...	89.940000
15	Convenience Concepts American Heritage Bookshe...	105.200000
20	Convenience Concepts Oxford Coffee Table with ...	105.580000
16	Convenience Concepts American Heritage Coffee ...	117.990000
38	Novogratz Voler Coffee Table, Light Oak	124.200000
17	Convenience Concepts American Heritage Round C...	127.000000
37	Novogratz Kelly Accent Cabinet, White/Taupe	133.750000
27	GreenPan Swift Healthy Ceramic Nonstick, 12 Pi...	134.990000
13	Caffoz 58" Home Entertainment Center Wood Medi...	142.720000
10	Ameriwood Home Pursuit Mobile File Cabinet, Ch...	145.230000
22	DHP Jett Junior Twin Metal Loft Bed, Black	150.000000
29	Kate and Laurel Cates Farmhouse Wood Framed Wa...	157.750000
36	Novogratz Kelly 5 Drawer Dresser, Faux Rattan ...	170.770000
43	Prepac Space-Saving Entryway Organizer with Sh...	178.990000
12	Boahaus Alva Dresser (Brown - White)	180.990000
47	South Shore Fusion 5-Drawer Chest, Pure White	199.990000
48	South Shore Step One Essential 5-Drawer Chest,...	201.370000
44	Sceptre 40" Class FHD (1080P) LED TV (X405BV-FSR)	207.000000

0	10 Strawberry Street Simply White 36 Oz Pasta/...	220.687551
9	Ameriwood Home Lamont Mantel Fireplace, White	330.390000
33	Lenovo ThinkCentre M70a Gen 3 11VL0040US Desk...	1023.370000

How does Walmart pricing compare to Amazon pricing across different departments or categories?

```
amazon_df=df[['AMAZON_NAME','DEPARTMENT','AMAZON_PRICE_CURRENT']]

walmart_df=df[['WALMART_NAME','DEPARTMENT','WALMART_PRICE_CURRENT']]

merged_df = pd.merge(walmart_df, amazon_df, on=['DEPARTMENT'], how='inner')
merged_df
```

	WALMART_NAME	DEPARTMENT	WALMART_PRICE_CURRENT	AMAZON_NAME	AMAZON_PRICE_CURRENT
0	Easter Bunny Wood Door Sign - Home Decor - 1 P...	Easter	14.290000	Easter Bunny Wood Door Sign - Home Decor - 1 P...	15.570000
1	Easter Bunny Wood Door Sign - Home Decor - 1 P...	Easter	14.290000	Kinder Bueno Milk Chocolate and Hazelnut Cream...	3.580000
2	Easter Bunny Wood Door Sign - Home Decor - 1 P...	Easter	14.290000	8" Brown Ivory and Orange Standing Duck Spring...	18.990000
3	Kinder Bueno Milk Chocolate and Hazelnut Cream...	Easter	3.580000	Easter Bunny Wood Door Sign - Home Decor - 1 P...	15.570000
4	Kinder Bueno Milk Chocolate and Hazelnut Cream...	Easter	3.580000	Kinder Bueno Milk Chocolate and Hazelnut Cream...	3.580000
...

from above the comprises and comparison between the walmart and amazon prices with their respective departments, it shows the common departments with their mention prices.

Are there any pricing trends or patterns within specific categories or departments?

```
df.groupby('DEPARTMENT')[['WALMART_PRICE_CURRENT','AMAZON_PRICE_CURRENT']].mean().sort_values(by='WALMART_PRICE_CURRENT')
```

	WALMART_PRICE_CURRENT	AMAZON_PRICE_CURRENT
Easter	12.286667	12.713333
Home, Furniture & Appliances	82.669974	85.218671
Electronics	1028.190000	1023.370000

```
df.groupby('CATEGORY')[['WALMART_PRICE_CURRENT','AMAZON_PRICE_CURRENT']].mean().sort_values(by='WALMART_PRICE_CURRENT')
```

	WALMART_PRICE_CURRENT	AMAZON_PRICE_CURRENT
CATEGORY		
Easter Top Picks	12.286667	12.713333
Bath	22.760000	19.970000
Kitchen & Dining	40.542500	40.916250
Decor	46.422000	45.988000
Storage & Organization	52.083333	53.930000
Bedding	59.650000	59.650000
Home, Furniture & Appliances	97.069388	99.348776
Home	99.826667	119.496667
Kid's Rooms	105.200000	105.200000
Furniture	134.619231	138.624615
Appliances	330.390000	330.390000
Computers	1028.190000	1023.370000

How many products are common between Walmart and Amazon? What are the top departments and categories represented in the dataset?

What are the top departments and categories represented in the dataset?

```
df[['DEPARTMENT', 'CATEGORY']].value_counts().head(5).reset_index()
```

	DEPARTMENT	CATEGORY	0
0	Home, Furniture & Appliances	Furniture	13
1	Home, Furniture & Appliances	Decor	10
2	Home, Furniture & Appliances	Kitchen & Dining	8
3	Home, Furniture & Appliances	Storage & Organization	6
4	Easter	Easter Top Picks	3

What is the average, minimum, and maximum price of Walmart products?

```
#df.groupby('WALMART_NAME')['WALMART_PRICE_CURRENT'].mean().reset_index()

df.groupby('WALMART_NAME').agg({'WALMART_PRICE_CURRENT': ['mean', 'median', 'max', 'min']}).reset_index()
```

	WALMART_NAME	WALMART_PRICE_CURRENT			
		mean	median	max	min
0	10 Strawberry Street Simply White 36 Oz Pasta/...	59.529694	59.529694	97.069388	21.990000
1	10 Strawberry Street Two Tone Coupe 5.5?€/24 ...	16.910000	16.910000	16.910000	16.910000
2	10 Strawberry Street Two Tone Coupe 8.5?€/36 ...	24.490000	24.490000	24.490000	24.490000
3	8" Brown Ivory and Orange Standing Duck Spring...	18.990000	18.990000	18.990000	18.990000
4	AcuRite Intelli-Time Digital Alarm Clock for B...	32.790000	32.790000	32.790000	32.790000
5	Alera ALEFW601416BL Compact 15.25 in. x 12.38 ...	26.110000	26.110000	26.110000	26.110000
6	Alera ALEFW601424BL 24 in. x 14 in. x 21 in. S...	36.050000	36.050000	36.050000	36.050000
7	Americanflat 12x18 Poster Frame in Silver - Co...	17.620000	17.620000	17.620000	17.620000
8	Americanflat 20x26 Puzzle Frame with Mat for 1...	34.990000	34.990000	34.990000	34.990000
9	Ameriwood Home Lamont Mantel Fireplace, White	330.390000	330.390000	330.390000	330.390000
10	Ameriwood Home Pursuit Mobile File Cabinet, Ch...	145.230000	145.230000	145.230000	145.230000
11	Arden Selections Outdoor Toss Pillow (2 Pack) ...	24.990000	24.990000	24.990000	24.990000
12	Boahaus Alva Dresser (Brown - White)	180.990000	180.990000	180.990000	180.990000
13	Caffoz 58" Home Entertainment Center Wood Medi...	109.780000	109.780000	109.780000	109.780000
14	Coghlan's Featherweight Mirror	6.670000	6.670000	6.670000	6.670000
15	Contact US to Get 5000+ products comparisons	97.069388	97.069388	97.069388	97.069388
16	Convenience Concepts American Heritage Bookshe...	105.200000	105.200000	105.200000	105.200000
17	Convenience Concepts American Heritage Coffee ...	117.990000	117.990000	117.990000	117.990000
18	Convenience Concepts American Heritage Round C...	127.000000	127.000000	127.000000	127.000000
19	Convenience Concepts	21.000000	21.000000	21.000000	21.000000

Is there any noticeable price difference between Walmart and Amazon for the same products?

```
df1=df[['WALMART_PRICE_CURRENT', 'AMAZON_PRICE_CURRENT']]  
df1
```

19	16.910000	16.910000
20	24.490000	24.490000
21	199.990000	199.990000
22	201.990000	201.370000
23	21.990000	21.990000
24	31.980000	33.990000
25	53.540000	59.490000
26	50.990000	50.990000
27	19.590000	19.590000
28	11.990000	11.990000
29	26.110000	27.610000
30	145.230000	145.230000
31	7.000000	9.990000
32	36.050000	37.670000
33	32.790000	32.790000
34	54.440000	54.440000
35	24.990000	24.990000
36	157.750000	157.750000
37	14.200000	14.200000
38	330.390000	330.390000
39	89.940000	89.940000
40	6.670000	6.170000
41	30.830000	26.990000
42	59.650000	59.650000
43	34.990000	34.990000
44	17.620000	17.620000
45	28.030000	27.950000
46	17.490000	11.990000
47	1028.190000	1023.370000
48	105.200000	105.200000
49	97.069388	99.348776
50	97.069388	99.348776