Sales Data for 12 months of a company was given to analyze and get insight in order to better understand how the business operates and make profitable decisions.

The first task would be to merge all 12 sales data together in a single csv file.

```
import os
import pandas as pd
```

```
for file in files:
    print(file)
    print(pd.read_csv(os.path.join(r'C:\Users\Joseph\Desktop\Sales_Data', file)))
    print('\n')
```

```
Sales_April_2019.csv
   Order ID                   Product  Quantity Ordered  Price Each  \
0    176558  USB-C Charging Cable                    2       11.95
1    176559       Bluetooth Headset                    1       99.99
2    176560   Google Phone USB-C Cable                    1        2.99
3    176561           Wired Headset                    1       11.99
4    176562      Vareo Hoverboard Bag                    1       45.99
..      ...                       ...               ...         ...
355  177913           Wired Headset                    1       11.99
356  177914      Vareo Hoverboard Bag                    1       45.99
357  177915  USB-C Charging Cable                    1       11.95
358  177916      Wired Headset                    1       11.99
359  177917      Wired Headset                    1       11.99

          Order Date  \
0   04/19/19 08:46
1   04/07/19 22:30
2   04/10/19 14:32
3   04/16/19 19:09
4   04/12/19 14:38
..                ...
355 04/19/19 14:44
356 04/04/19 20:34
357 04/18/19 19:39
358 04/05/19 14:48
359 04/07/19 12:18

                                   Purchase Address
0                  917 1st Street, Dallas, TX 75001
1     682 Chestnut St, Boston, MA 02215
2     547 5th St, San Francisco, CA 94016
3     389 Spruce St, Los Angeles, CA 90001
4     669 Spruce St, Los Angeles, CA 90001
..                                     ...
355  917 1st Street, Dallas, TX 75001
356  859 Hickory St, Seattle, WA 98101
357  917 1st Street, Dallas, TX 75001
358  790 Ridge St, Los Angeles, CA 90001
359  790 Ridge St, Los Angeles, CA 90001

[360 rows x 6 columns]
```

Reading the first file

```
df = pd.read_csv(r'C:\Users\Joseph\Desktop\Sales_Data\Sales_April_2019.csv')
df.head()
```

	Order ID	Product	Quantity Ordered	Price Each	Order Date	Purchase Address
0	176558	USB-C Charging Cable	2	11.95	04/19/19 08:46	917 1st Street, Dallas, TX 75001
1	176559	Bluetooth Headset	1	99.99	04/07/19 22:30	682 Chestnut St, Boston, MA 02215
2	176560	Google Phone USB-C Cable	1	2.99	04/10/19 14:32	547 5th St, San Francisco, CA 94016
3	176561	Wired Headset	1	11.99	04/16/19 19:09	389 Spruce St, Los Angeles, CA 90001
4	176562	Vareo Hoverboard Bag	1	45.99	04/12/19 14:38	669 Spruce St, Los Angeles, CA 90001

Merging the 12 months data together

```
df = pd.read_csv("./Sales_Data/*.csv")
```

```
files = [file for in os.listdir('./Sales_Data')]
for file in files:
    df = pd.read_csv("./Sales_Data/"+file)
    df = df[df.Order ID.str.contains(r'^\d{6}$', na=False)]
    df.to_csv('./Sales_Data/'+file, mode='w')
```

Creating a csv file for the merged data

```
df.to_csv('./Sales_Data/all_data.csv', index=False)
```

```
df = pd.read_csv('./Sales_Data/all_data.csv')
df.head()
```

	Order ID	Product	Quantity Ordered	Price Each	Order Date	Purchase Address
0	176558	USB-C Charging Cable	2	11.95	04/19/19 08:46	917 1st Street, Dallas, TX 75001
1	176559	Bluetooth Headset	1	99.99	04/07/19 22:30	682 Chestnut St, Boston, MA 02215
2	176560	Google Phone USB-C Cable	1	2.99	04/10/19 14:32	547 5th St, San Francisco, CA 94016
3	176561	Wired Headset	1	11.99	04/16/19 19:09	389 Spruce St, Los Angeles, CA 90001
4	176562	Vareo Hoverboard Bag	1	45.99	04/12/19 14:38	669 Spruce St, Los Angeles, CA 90001

Clean up the data

```
df.drop(['Unnamed: 0'], inplace=True)
```

```
df.drop(['Unnamed: 0'], inplace=True)
df.head()
```

	Order ID	Product	Quantity Ordered	Price Each	Order Date	Purchase Address
0	176558	USB-C Charging Cable	2	11.95	04/19/19 08:46	917 1st Street, Dallas, TX 75001
1	176559	Bluetooth Headset	1	99.99	04/07/19 22:30	682 Chestnut St, Boston, MA 02215
2	176560	Google Phone USB-C Cable	1	2.99	04/10/19 14:32	547 5th St, San Francisco, CA 94016
3	176561	Wired Headset	1	11.99	04/16/19 19:09	389 Spruce St, Los Angeles, CA 90001
4	176562	Vareo Hoverboard Bag	1	45.99	04/12/19 14:38	669 Spruce St, Los Angeles, CA 90001

Check for null values in the data set

```
df.isna.sum()
```

```
Order ID            0
Product             0
Quantity Ordered    0
Price Each          0
Order Date          0
Purchase Address    0
dtype: int64
```

Display all columns

```
df.columns.values
```

```
array(['Order ID', 'Product', 'Quantity Ordered', 'Price Each',
       'Order Date', 'Purchase Address'], dtype=object)
```

Create the month column from object to integer format

```
df['month'] = df['Order Date'].str.slice(0,2).astype('int')
```

```
df['month'] = df['Order Date'].str.slice(0,2).astype('int')
```

```
df.dtypes
```

```
Order ID            object
Product             object
Quantity Ordered    object
Price Each          object
Order Date          object
Purchase Address    object
month               int64
dtype: object
```

Convert Quantity Ordered and Price Each to integers

```
df['Quantity Ordered'] = df['Quantity Ordered'].astype('int')
df['Price Each'] = df['Price Each'].astype('float')
```

```
df.dtypes
```

```
Order ID            object
Product             object
Quantity Ordered    int64
Price Each          float64
Order Date          object
Purchase Address    object
month               int64
dtype: object
```

Creating a sales column that contains the total sales

```
df.head()
```

	Order ID	Product	Quantity Ordered	Price Each	Order Date	Purchase Address	month
0	176558	USB-C Charging Cable	2	11.95	04/19/19 08:46	917 1st Street, Dallas, TX 75001	4
1	176559	Bluetooth Headset	1	99.99	04/07/19 22:30	682 Chestnut St, Boston, MA 02215	4
2	176560	Google Phone USB-C Cable	1	2.99	04/10/19 14:32	547 5th St, San Francisco, CA 94016	4
3	176561	Wired Headset	1	11.99	04/16/19 19:09	389 Spruce St, Los Angeles, CA 90001	4
4	176562	Vareo Hoverboard Bag	1	45.99	04/12/19 14:38	669 Spruce St, Los Angeles, CA 90001	4

Rearranging the columns in the data set

```
df = df[['Order ID', 'Product', 'Quantity Ordered', 'Price Each', 'Order Date', 'month', 'Purchase Address']]
df.head()
```

	Order ID	Product	Quantity Ordered	Price Each	Order Date	month	Purchase Address
0	176558	USB-C Charging Cable	2	11.95	04/19/19 08:46	4	917 1st Street, Dallas, TX 75001
1	176559	Bluetooth Headset	1	99.99	04/07/19 22:30	4	682 Chestnut St, Boston, MA 02215
2	176560	Google Phone USB-C Cable	1	2.99	04/10/19 14:32	4	547 5th St, San Francisco, CA 94016
3	176561	Wired Headset	1	11.99	04/16/19 19:09	4	389 Spruce St, Los Angeles, CA 90001
4	176562	Vareo Hoverboard Bag	1	45.99	04/12/19 14:38	4	669 Spruce St, Los Angeles, CA 90001

QUESTION 1: WHAT WAS THE BEST MONTH FOR SALES? HOW MUCH WAS EARNED IN THAT MONTH?

```
sales_agg= df[['Price Each', 'month']].sum(axis=1)
sales_agg.head()
```

```
0    35.95
1    99.99
2     5.98
3    23.98
4    91.98
dtype: float64
```

```
df['Sales'] = df['Price Each']*df['Quantity Ordered']
df.head()
```

	Order ID	Product	Quantity Ordered	Price Each	Order Date	month	Purchase Address	Sales
0	176558	USB-C Charging Cable	2	11.95	04/19/19 08:46	4	917 1st Street, Dallas, TX 75001	23.90
1	176559	Bluetooth Headset	1	99.99	04/07/19 22:30	4	682 Chestnut St, Boston, MA 02215	99.99
2	176560	Google Phone USB-C Cable	1	2.99	04/10/19 14:32	4	547 5th St, San Francisco, CA 94016	2.99
3	176561	Wired Headset	1	11.99	04/16/19 19:09	4	389 Spruce St, Los Angeles, CA 90001	11.99
4	176562	Vareo Hoverboard Bag	1	45.99	04/12/19 14:38	4	669 Spruce St, Los Angeles, CA 90001	45.99

```
df.groupby('month').sum()
```

```
C:\Users\Joseph\AppData\Local\Temp\ipykernel_12464\1:1: FutureWarning: Dropping of nuisance columns in DataFrame reductions (with 'numeric_only=False') is deprecated; in a future version this will raise TypeError.
  df.groupby('month').sum()
```

month	Quantity Ordered	Price Each	Sales
1	10903	1811768.38	1822256.73
2	13449	2188884.72	2202022.42
3	17005	2791207.83	2807100.38
4	20558	3367671.02	3390670.24
5	18667	3135125.13	3152607.75
6	15253	2562025.61	2577802.26
7	16072	2632539.56	2647775.76
8	13448	2230345.42	2244467.85
9	13109	2084992.09	2097560.13
10	22703	3715554.83	3736726.88
11	19798	3180600.68	3199603.20
12	28114	4588415.41	4613443.34

```
df.head()
```

	Order ID	Product	Quantity Ordered	Price Each	Order Date	month	Purchase Address	Sales
0	176558	USB-C Charging Cable	2	11.95	04/19/19 08:46	4	917 1st Street, Dallas, TX 75001	23.90
1	176559	Bluetooth Headset	1	99.99	04/07/19 22:30	4	682 Chestnut St, Boston, MA 02215	99.99
2	176560	Google Phone USB-C Cable	1	2.99	04/10/19 14:32	4	547 5th St, San Francisco, CA 94016	2.99
3	176561	Wired Headset	1	11.99	04/16/19 19:09	4	389 Spruce St, Los Angeles, CA 90001	11.99
4	176562	Vareo Hoverboard Bag	1	45.99	04/12/19 14:38	4	669 Spruce St, Los Angeles, CA 90001	45.99

```
df['Sales'].sum()
```

```
34492075.63
```

```
df['month'].value_counts()
```

```
12    28114
10    22703
11    19798
5     18667
4     20558
3     17005
7     16072
6     15253
2     13449
8     13448
9     13109
1     10903
Name: month, dtype: int64
```

```
df.shape
```

```
(186850, 8)
```

```
df.shape[0]
```

```
186850
```

```
df.shape[1]
```

```
8
```

```
df.shape[0]/df.shape[1]
```

```
23356.25
```

```
df.shape[0]/df.shape[1]*12
```

```
280275.0
```

```
df.shape[0]/df.shape[1]*12/12
```

```
23356.25
```

```
df.shape[0]/df.shape[1]*12/12/30
```

```
778.8541666666667
```

```
df.shape[0]/df.shape[1]*12/12/30/24
```

```
32.45225694444444
```

```
df['month'].value_counts()
```

```
12    28114
10    22703
11    19798
5     18667
4     20558
3     17005
7     16072
6     15253
2     13449
8     13448
9     13109
1     10903
Name: month, dtype: int64
```

```
df['Sales'].sum()
```

```
34492075.63
```

```
df['Sales'].sum()/12
```

```
2874339.6358333333
```

```
df['Sales'].sum()/12/30
```

```
95811.32119444444
```

```
df['Sales'].sum()/12/30/24
```

```
3992.1383831851852
```

```
df['Sales'].sum()/12/30/24/60
```

```
66.53564638641975
```

```
df['Sales'].sum()/12/30/24/60/60
```

```
1.1089274397736625
```

```
df['Sales'].sum()/12/30/24/60/60*100
```

```
110.89274397736625
```

```
df['Sales'].sum()/12/30/24/60/60*100/12
```

```
9.240228664780521
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30
```

```
0.3080076221593507
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24
```

```
0.01283365092330628
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60
```

```
0.000213894182055104
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60
```

```
3.5649030342517333e-06
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100
```

```
0.000356490303425173
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
2.9707525285431107e-05
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
9.902508428477036e-07
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
4.1260418452987652e-08
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
6.8767364088312754e-10
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.1461227348052126e-11
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100
```

```
1.1461227348052126e-09
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
9.550189456710105e-11
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
3.1833964855703684e-12
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
1.3263318689876535e-13
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
5.5263828708318896e-15
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
2.3026595295132873e-16
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100
```

```
2.3026595295132873e-14
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
1.9188829412610727e-15
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
6.3962764708702424e-17
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
2.6651151961959343e-18
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
1.1104646650816393e-19
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
4.6269360211734972e-21
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100
```

```
4.6269360211734972e-19
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
3.8557800176445809e-20
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
1.6065916740185754e-21
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
6.6941319750774808e-23
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
2.7892216562822837e-24
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.1621756984509516e-25
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100
```

```
1.1621756984509516e-23
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
9.6848808204246299e-25
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
4.0353669184269291e-26
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
1.6814167993445538e-27
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
7.0058199972689743e-28
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
2.9190916655287393e-29
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100
```

```
2.9190916655287393e-27
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
2.4325763879406161e-28
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
8.1085879598020537e-29
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
3.2434351839208215e-30
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
1.2973740735683286e-31
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
5.1894962942733144e-32
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100
```

```
5.1894962942733144e-30
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
4.3245802452277620e-31
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
1.4415267484092540e-32
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
5.7660697936370160e-34
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
2.3064279174548064e-35
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
7.6880930581826880e-37
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100
```

```
7.6880930581826880e-35
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
6.4067441317355733e-36
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
2.1355813772451911e-37
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
7.1186045907506370e-38
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
2.3728681969168790e-39
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
7.9095606563895960e-40
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12
```

```
6.5912338803246633e-41
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30
```

```
2.1970779601082211e-42
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24
```

```
7.3235931336940703e-43
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60
```

```
2.4411977112313568e-44
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
8.1373257040771189e-46
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
2.7124419013590396e-47
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
9.0414730045301320e-49
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
3.0138243348433773e-50
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.0046081116144591e-51
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
3.3486937053815304e-53
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.1162312351271768e-54
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
3.7207707837572560e-56
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.2402569279190853e-57
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
4.1341897597302844e-59
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.3780632532434281e-60
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
4.5935441774780938e-62
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.5311813924926979e-63
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
5.1039379749756596e-65
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.7013126583252199e-66
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
5.6710421944174000e-68
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
1.8903473981391333e-69
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
6.3011579937971110e-71
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
2.1003859979323703e-72
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
7.0012866597745677e-74
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60
```

```
2.3337622199248559e-75
```

```
df['Sales'].sum()/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/30/24/60/60*100/12/
```