Business Analytics Programming - Spring 2019, Practice Set # 3 (Pandas DataFrames)

Use the table df below for the questions (Assume this is just the first 7 rows)

	Fruit	Price	Sales	Date
0	Apple	2	140	Jan-1-2017
1	Orange	2	400	May-10-2017
2	Grapes	5	180	Feb-5-2017
3	Plums	2	300	Mar-7-2017
4	Peaches	6	120	Apr-12-2017
5	Water Melon	5	180	Nov-18-2017
6	Pineapple	4	60	Jul-13-2017

```
import numpy as np
import pandas as pd

```

1. **What values will you get back for df.iloc[2]?**
2. **What values will you get back for df3.loc[3,['Fruit','Price']]?**
3. **Change all the prices of 'Orange' to 4.**
4. **Change all the prices of 'Orange' to 5, where Sales is less than 100.**
5. **Create a new table df2 with just the Sales column and the Price column.**
6. **Create a "Period" column in table df, that converts the string dates from "DateString" in to date objects.**
7. **Create a table df2 where all the sales are greater then 100 and price are greater then 5.**
8. **Create a table df2 that has the 20 lowest prices, for only fruits with sales less then 250.**
9. **Create a bar graph where Fruit is on the x-axis and price is on the y-axis, for the highest 50 prices. df.plot(kind='bar',x='Fruit',y='Price')**
10. **There is a dictionary named paymenttype, that has the keys as the sales numbers and the value as the type of payment used when the fruit is purchased. Add a new column in df called 'Ptype' that inserts the correct payment type for each sales.**
11. **What is the average price of all the fruits in the table?**
12. **What is the total count of each fruit in the table, in descending order?**
13. **What is the total amount of sales, by fruit, in ascending order, just the top 5.**
14. **What is the average price of fruit, for fruits that have sales less then 200.**
15. **What is the average price of fruit, for fruits that have sales greater then 100 and less then 350, in ascending order**