Practice Exercise 1

You are provided with 2 lists that contain the data of an ecommerce website. The first list contains the data for the number of items sold for a particular product and the second list contains the price of the product sold. As a part of this exercise, solve the questions that are provided below.

In [1]:
```python
number = [8, 9, 9, 1, 6, 9, 5, 7, 3, 9, 7, 3, 4, 8, 3, 5, 8, 4, 8, 7, 5, 7, 3, 6, 1, 2, 7, 4, 7, 7, 8, 4, 3, 4, 2, 2, 2, 7, 3, 5,
price = [195, 225, 150, 150, 90, 60, 75, 255, 270, 225, 135, 195, 30, 15, 210, 105, 15, 30, 180, 60, 165, 60, 45, 225, 180, 90, 30
```

How many different products are sold by the company in total?

- 99
- 100
- 101
- 102

In [4]:
```python
import numpy as np
n = np.array(number)
p = np.array(price)
```

In [5]:
```python
n.size
```

Out[5]: 102

How many items were sold in total?

- 460
- 490
- 500
- 520

In [6]:
```python
sum(n)
```

490

What is the average price of the products sold by the ecommerce company?

- 139
- 151
- 142
- 128

In [7]:

```
p.mean()
```

Out[7]: 139.01960784313727

What is the price of the costliest item sold?

- 225
- 310
- 280
- 285

In [8]:

```
p.max()
```

Out[8]: 285

What is the total revenue of the company? [Revenue = Price*Quantity]

- 67100
- 53900
- 45300
- 71200

In [12]:

```
r = p*n
sum(r)
```

Out[12]:   67100

Demand for the 20th product in the list is more than the 50th product. [True/False]

- True
- False
- Can't be calculated

In [19]:
```python
n[19] > n[49]
```

Out[19]:   True

How many products fall under the category of expensive goods?

An expensive good is that good whose price is more than the average price of the products sold by the company.

- 48
- 50
- 52
- 54

In [21]:
```python
p[p>p.mean()].size
```

Out[21]:   52