**REVISION 2 - ANSWER TWO QUESTIONS ONLY**

**Question 1**

The following table shows the daily sale of one the soft drink over 10 days period.

|  |  |
| --- | --- |
| Day | Sale in $ |
| 1 | 38 |
| 2 | 39 |
| 3 | 45 |
| 4 | 47 |
| 5 | 45 |
| 6 | 38 |
| 7 | 45 |
| 8 | 38 |
| 9 | 39 |
| 10 | 47 |

Based on the data, please calculate the followings:

1. The mean
2. The mode
3. The range
4. The median
5. The standard deviation

**Question 2**

The individual income over 2015 to 2019 can be found in the following table.

|  |  |
| --- | --- |
| Year | Income in £ (000) |
| 2015 | 3.8 |
| 2016 | 5.2 |
| 2017 | 4.8 |
| 2018 | 5.6 |
| 2019 | 5.8 |

1. If the base year is 2018, calculate the index numbers for the given period of time.
2. If the base year is changed to 2016, calculate the index numbers for 2015 and 2019.
3. If the index is 88.97 in year 2017, what is the income of the base year.
4. If the index is 103.86 in 2019, what is the income of the base year.
5. If the index is 98.53 in 2015, calculate the income of the base year.

**Question 3**

1. There are 650 different coloured pens in a box in which 275 are blue, 125 are black and rest of them are red.
2. What is the probability of having a red pen?
3. What is the probability of having a blue pen?
4. What is the probability of having a black pen?
5. In a box, there are 800 breads in which 380 are white, 240 are seeded and rest are brown.
6. What is the probability of having brown or white bread?
7. What is the probability of having seeded or brown bread?
8. In a supermarket 80% of customers buy almond milk, 60% of them buy soya milk and 45% of them buy both almond and soya milk. What proportion of customers buy at least one type of milk.
9. In a factory, machine A produces 8500 items in which 900 are damaged. Machine B produces 6300 items in which 750 are damaged. If one item is taken out from each machine, what is the probability that both items are damaged.