1. In a bag of counters, there are 3 orange, 4 brown and 1 yellow.

   Write down the probability of selecting:

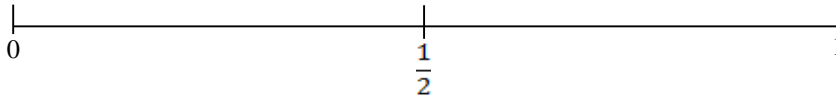   (i)   Orange ...................

   (ii)  Red ...................

   (iii) Brown or yellow ...................

   (3 marks)

2. On the probability scale below, mark with an X

   The probability of selecting a **diamond** from a standard deck of cards.

   |————————————————|————————————————|
   0                                $\frac{1}{2}$                               1

   (1 mark)

3. The table below shows the probabilities of choosing a counter from a bag.

   | Red | Blue | Green | Orange |
   |-----|------|-------|--------|
   | 0.3 | 0.05 | $x$   | 0.4    |

   Work out the value of $x$.
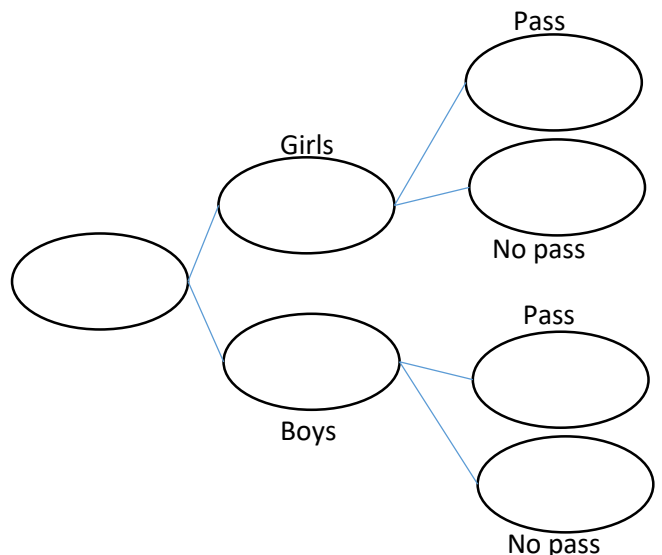
   $x =$ ...............

   (1 mark)

4. There are 30 students in a class.

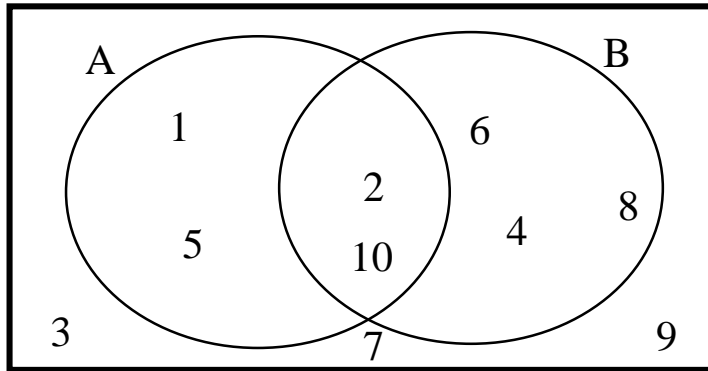   13 of the students were boys
   5 of the girls pass a test
   9 of the boys don't pass the test.

   (a) Complete the frequency tree.

   Pass

   Girls

   No pass

   Pass

   Boys

   No pass

   (2 marks)

5. Below is Venn diagram showing some data.



Write down the probability of selecting:

(i)  $A$ ...........................

(ii)  $A \cap B$ ...........................

(iii)  $A'$ ...........................

(3 marks)

6. Harriett is going to roll 2 fair six sided dice.
   She multiplies the two scores together.
   She has started to complete the sample space diagram.

(a) Complete the table

| x | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 |   |   |   |   |   |   |
| 2 |   |   |   | 8 |   |   |
| 3 | 3 |   |   |   |   |   |
| 4 |   |   |   |   |   |   |
| 5 |   |   |   |   |   |   |
| 6 |   |   |   | 24 |   |   |

(b) Calculate the probability of scoring a total of 12. ...........................

(3 marks)

Score =