Higher Homework 40 : Probability

1. The table below shows information about counters in a bag.

A counter is chosen at random.
The probability of selecting a blue counter is $\frac{2}{5}$

Work out the how many black counters there are.

Colours	Blue	Yellow	Black
Frequency	12	$2x$	$x - 3$

4 counters

(3 marks)

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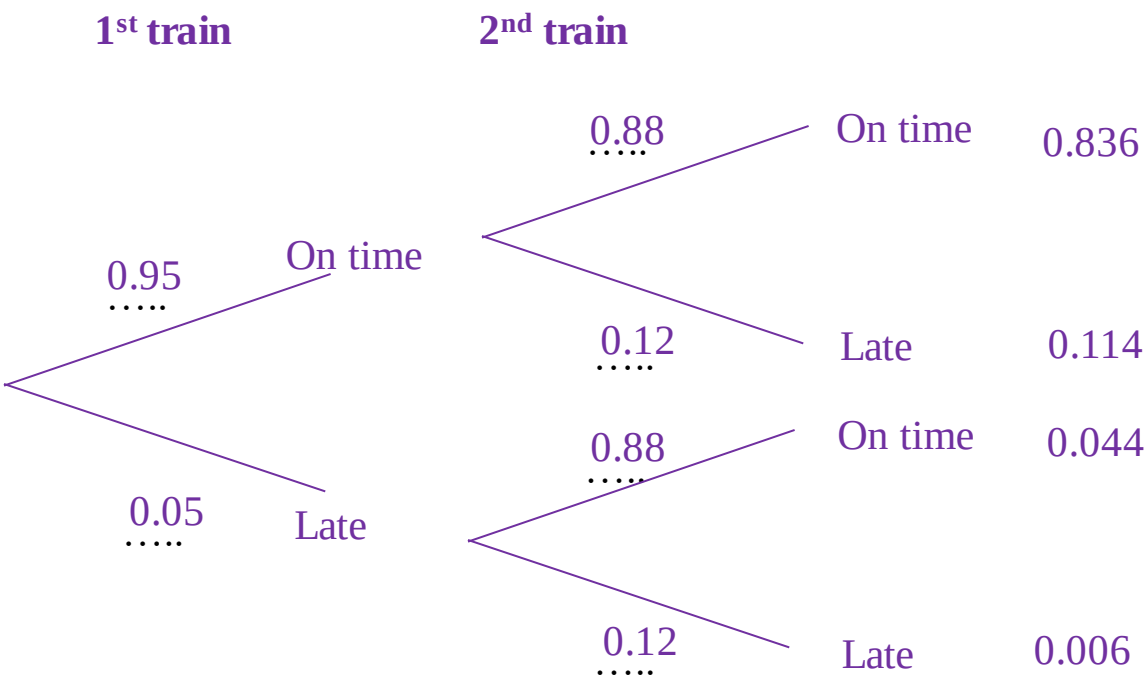
2. Libby takes two trains to get to work.
The probability the first on is on time is 0.95
If the first train is late, the probability that the second train is late is x.
The probability that both trains are late are 0.6%



(a) Work out the probability that only 1 train will be late.

0.158

(4 marks)

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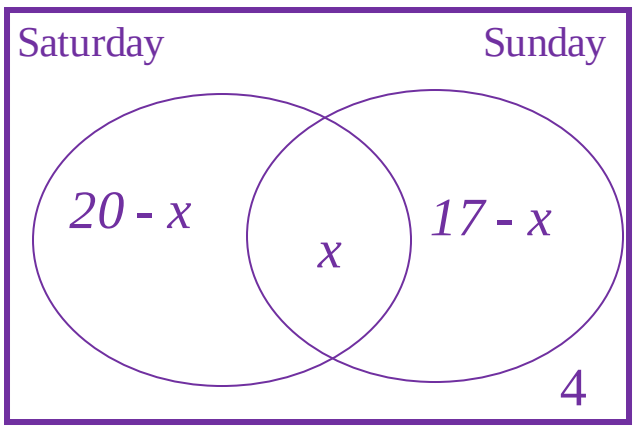
3. There are 30 workers in an office.
They either worked overtime on Saturday, Sunday, or not at all.
20 employees chose to work on Saturday.
17 chose to work on the Sunday.
4 chose not to go in at all.
How many employees worked on both days?



$x = 11$

(4 marks)

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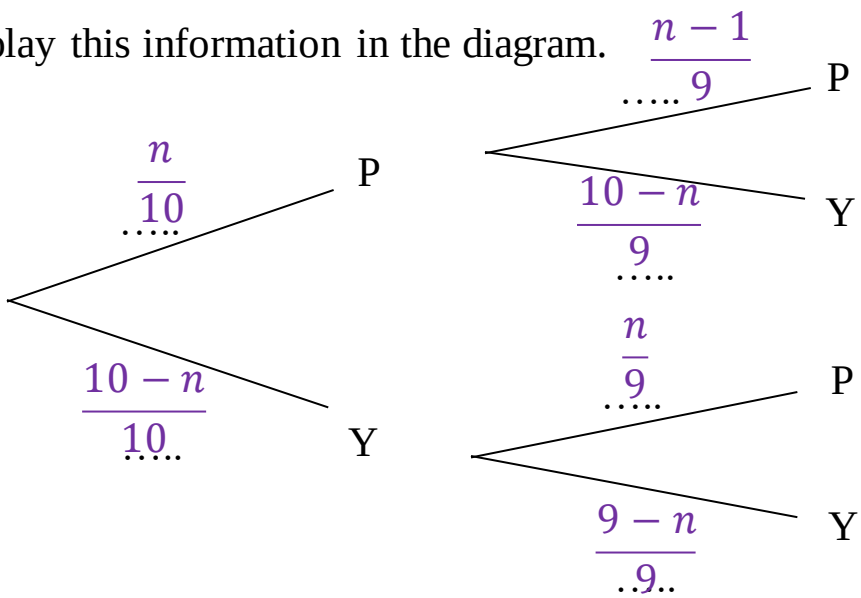
2. A box only contains 10 counters.
The counters are either pink or yellow.
A counter is selected, **not** replaced then another is selected.
If the probability of selecting two pinks is $\frac{28}{45}$

a) Display this information in the diagram.



(3 marks)

(b) Calculate the probability of getting 2 yellow counters.

$\frac{1}{45}$

8 pink 2 yellow

(2 marks)

Score =