

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

A counter is chosen at random.

The probability of selecting a red counter is $\frac{1}{12}$

Work out the how many green counters there are.

Colours	Red	Blue	Green
Frequency	2	$3x$	$x + 2$

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(3 marks)

2. Henry teaches people how to drive.

His pass rate on the first time is 0.65

If someone doesn't pass first time, the probability they will fail second time is 0.22

(a) Draw a tree diagram to show this.

(3 marks)

(b) Work out the probability she will be accepted at only 1.

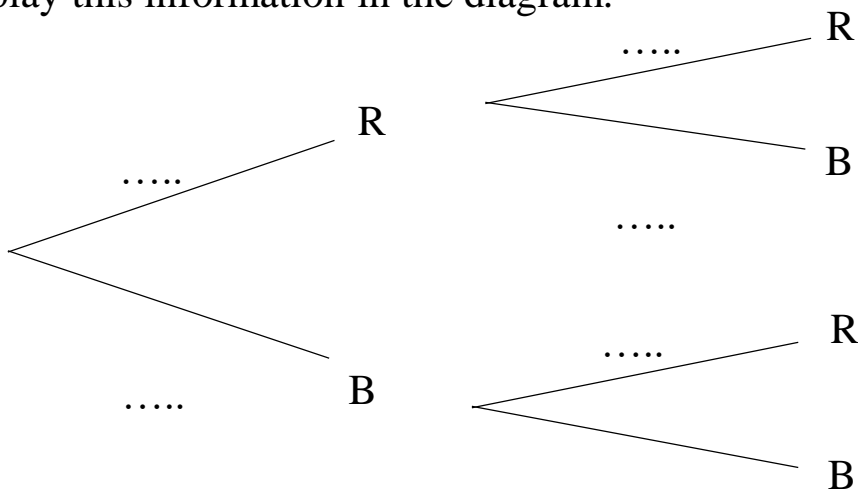
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(2 marks)

3. 60 students attend a small sixth form college.
 28 students study all 3 sciences.
 34 students study chemistry and physics.
 32 study biology and physics.
 5 students study biology and chemistry, but not physics.
 3 study only physics.
 38 students in total study biology.
 9 students don't study any science at all.
 How many students only study chemistry?

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 (4 marks)

2. A box only contains 4 counters.
 The counters are either red or blue.
 A counter is selected, replaced then another is selected.
 If the probability of selecting red and red is $\frac{1}{16}$

a) Display this information in the diagram.



(3 marks)

- (b) Calculate how many red counters there are in the bag.
 (2 marks)

Score =