

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 how many green counters there are.

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

Available from
my TES
account

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(3 marks)

2. Henry teaches people to drive.

His pass rate on the first time is 0.78.

If someone doesn't pass first time is 0.22.

the probability they will fail second time is 0.4.

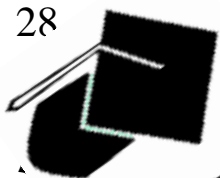
(a) Draw a tree diagram to show the probabilities.

(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 study all 3 sciences.



15 study chemistry and physics.

10 study biology and physics.

5 study biology and chemistry, but not physics.

3 students

38 students study biology.

9 students study science at all 3 levels.

How many students study chemistry?

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my TES
account

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(4 marks)

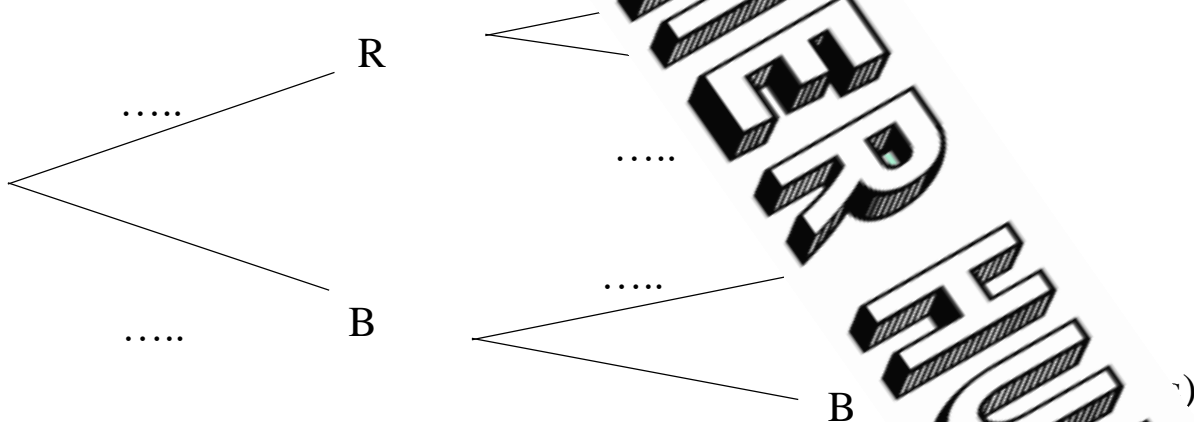
2. A box only contains 4 counters.

The counters are either red or blue.

A counter is selected, replaced then another counter is selected.

If the probability of selecting red a counter is $\frac{1}{4}$.

a) Display this information in the diagram.



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

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(2 marks)

Score =