**End of Unit Test** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Probability - HIGHER**

**1.** (a) In a statistical experiment a fair, ordinary dice is rolled. Tick a box to show the

correct ending to the sentence below.

When this statistical experiment is repeated you will:

always get the same outcome □

usually get the same outcome □

usually get a different outcome □

always get a different outcome  □

**(1)**

(b) Tick a box to show the correct ending to the sentence below.

An estimate of probability based on a statistical experiment is more reliable with

more trials □

fewer trials □

more time between trials □

less time between trials □

**(1)**

**(Total 2 marks)**

**2.** An ordinary fair dice is rolled 120 times. How many times would you expect to roll a 6?

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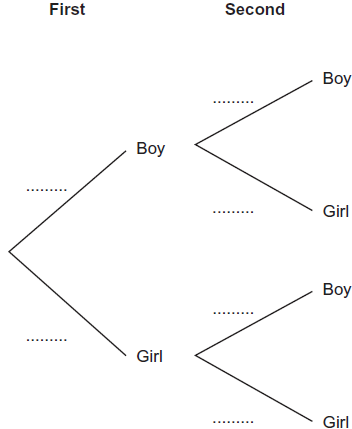
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Answer ......................................................................

**(Total 2 marks)**

**3.** A team has 7 boys and 3 girls. Stevie chooses two of the team at random.

(a) Complete the probability tree diagram.



**(3)**

(b) Work out the probability that he chooses one boy and one girl.

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…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

…………………………………………………………………………………………………..

Answer ......................................................................

**(3)**

**(Total 6 marks)**

**4.** The probability that Simon passes his driving test is . The probability that Kim passes her driving test is . Work out the probability that at **least** one of them passes the driving test.

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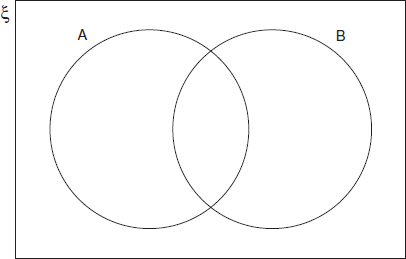
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Answer ......................................................................

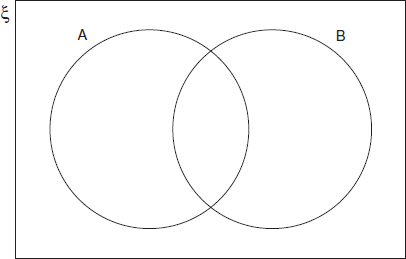
**(Total 3 marks)**

**5.** (a) Shade the Venn diagram to show the region .



**(1)**

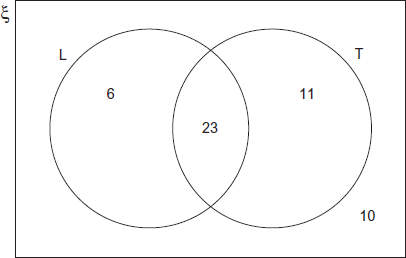
(b) Shade the Venn diagram to show the region .



**(1)**

**(Total 2 marks)**

**6.** Here is a Venn diagram. It shows information about the number of students who have a laptop or a TV. Set L represents students with a laptop. Set T represents students with a TV.



There are 50 students altogether. A student is chosen at random.

(a) Work out .

Answer .............................................................................

**(1)**

(b) Work out .

Answer .............................................................................

**(1)**

(c) Complete the following using set notation.

………………………

**(1)**

(d) Complete the following using set notation.

………………………

**(2)**

**(Total 5 marks)**

**(Total for test = 20 marks)**