WORKSHEET

Name: ..... Class: .....

Date: .....

MARK ____ / 29

Answer all questions. Show all your working — marks are awarded for method as well as the final answer.

1 How many 4-digit PINs can be formed if digits may repeat? (2)

2 How many 4-digit PINs can be formed if no digit may repeat? (2)

3 In how many ways can 5 different books be arranged on a shelf? (1)

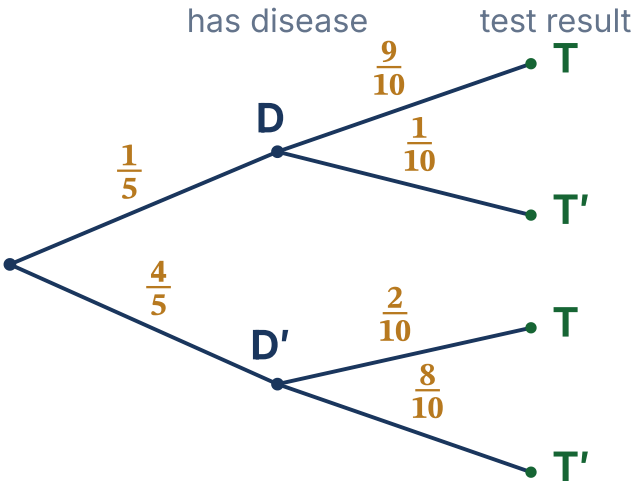
4 4 boys and 3 girls sit in a row. In how many ways can they sit if the girls sit together? (3)

5 For those 7 learners, calculate the probability that the girls sit together. (2)

6 How many arrangements are there of the letters of the word LETTER? (3)

7 Write down the value of $0!$ (1)

8 Using the tree diagram below, calculate the probability that a person tests positive. (3)



9 Of 80 learners: 40 play soccer, 32 play cricket, 28 play tennis; 15 play soccer and cricket, 12 soccer and tennis, 10 cricket and tennis, and 6 play all three. How many play none? (4)

10 In a group of 150 people, 90 are female and 60 wear glasses, of whom 40 are female. Determine whether ‘female’ and ‘wears glasses’ are independent. **(4)**

11 State the test for two events being independent. **(2)**

12 Why must a three-event Venn diagram be filled from the centre outwards? **(2)**

TOTAL: 29 marks

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