GCSE HIGHER · REVISION MAT 2

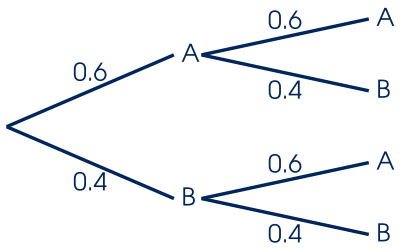
Combined events

1 Two fair dice are rolled.

Find P(double 6).

2 A spinner lands on A with probability 0.6.

It is spun twice.



Find P(A, A).

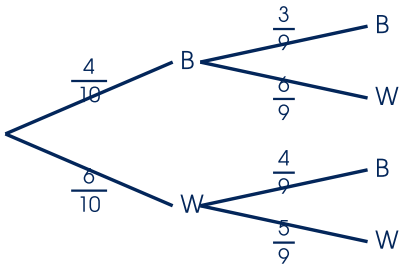
3 Explain why taking sweets without replacement changes the probabilities for the second sweet.

4 P(bus late) = 0.2 and P(train late) = 0.1, independently.

Find P(neither is late).

5 A bag has 4 blue and 6 white beads.

Two are taken without replacement.



Show that P(both blue) = $\frac{2}{15}$.

6 A bag has 4 blue and 6 white beads.

Two are taken without replacement.

Find P(one of each colour).

7 Using the same bag, show that P(at least one white) = $\frac{13}{15}$.

8 A box has 10 bulbs, 3 of which are faulty.

Two are taken without replacement.

Find P(exactly one is faulty).

ANSWERS · REVISION MAT 2

Combined events

1 $\frac{1}{36}$

2 0.6×0.6

0.36

3 **There is one fewer sweet, and one fewer of the colour taken.**

4 0.8×0.9

0.72

5 $\frac{4}{10} \times \frac{3}{9} = \frac{12}{90}$

$= \frac{2}{15}$

6 $2 \times \frac{4}{10} \times \frac{6}{9} = \frac{48}{90}$

$\frac{8}{15}$

7 $1 - P(\textit{both blue})$

$1 - \frac{2}{15} = \frac{13}{15}$

8 $2 \times \frac{3}{10} \times \frac{7}{9} = \frac{42}{90}$

$\frac{7}{15}$

Mr&Mrs MATHS