GCSE HIGHER · REVISION MAT 4

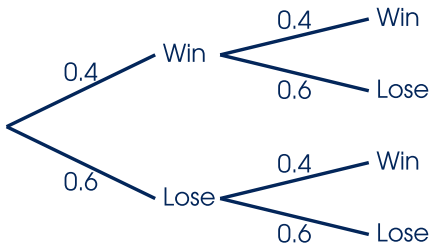
Combined events

1 A 4-sided spinner (1 to 4) is spun and a coin is flipped.

Find P(even number and tail).

2 P(win a game) = 0.4.

Two games are played.



Find P(wins both).

3 A dice is rolled once.

Explain why 'roll a 6' and 'roll an even number' are not independent.

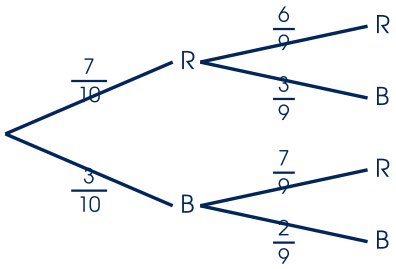
4 P(win a game) = 0.4.

Two games are played.

Find P(wins at least one).

5 A bag has 7 red and 3 blue marbles.

Two are taken without replacement.



Show that P(both blue) = $\frac{1}{15}$.

6 Using the same bag, find P(both the same colour).

7 Using the same bag, show that P(different colours) = $\frac{7}{15}$.

8 A bag has red and blue counters.

P(red) = x.

Two are taken with replacement.

P(both the same colour) = 0.58.

Find the possible values of x.

Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Combined events

1 $\frac{1}{2} \times \frac{1}{2}$

$\frac{1}{4}$

2 0.4×0.4

0.16

3 **If you roll a 6, you must have rolled an even number: one affects the other.**

4 $1 - 0.6^2$

0.64

5 $\frac{3}{10} \times \frac{2}{9} = \frac{6}{90}$

$= \frac{1}{15}$

6 $\frac{42}{90} + \frac{6}{90}$

$\frac{8}{15}$

7 $1 - \frac{8}{15} = \frac{7}{15}$

8 $x^2 + (1 - x)^2 = 0.58$

$x^2 - x + 0.21 = 0$

$x = 0.3$ or $x = 0.7$

Mr&Mrs MATHS