GCSE HIGHER · REVISION MAT 3

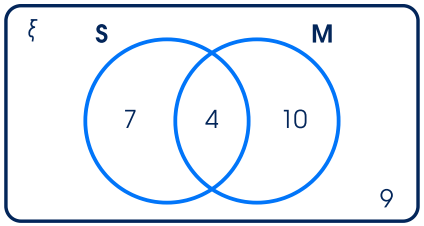
Conditional probability

1 A boy is chosen at random.

Find P(left-handed).

	Left	Right	Total
Boys	4	26	30
Girls	3	27	30
Total	7	53	60

2 Find P(S | M).



3 Explain why P(A | A) = 1.

4 A card is chosen from cards numbered 1 to 10.

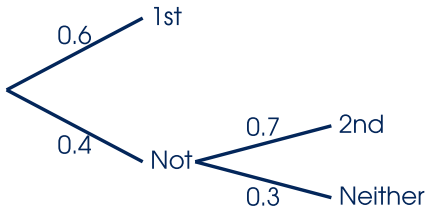
Given that it is even,
find P(it is a multiple of 3).

5 P(B) = 0.6 and P(A ∩ B) = 0.24.

Show that P(A | B) = 0.4.

6 P(first-choice college) = 0.6.

If not,
P(second-choice college) = 0.7.



Given that she gets a place,
find P(it is her first choice).

7 Explain why, for independent events, P(A | B) = P(A).

8 A box has 3 good and 2 faulty fuses.

Fuses are taken without replacement.

Given the first is good,
find P(the second is faulty).

Mr&Mrs MATHS

ANSWERS · REVISION MAT 3

Conditional probability

1 $\frac{4}{30} = \frac{2}{15}$

2 n(M) = 14

$\frac{4}{14} = \frac{2}{7}$

3 **If A has happened, A is certain.**

4 Even: 2, 4, 6, 8, 10

$\frac{1}{5}$

5 $\frac{0.24}{0.6}$

$= 0.4$

6 P(a place) = 0.6 + 0.28 = 0.88

$\frac{0.6}{0.88} = 0.682$

7 **B happening does not change the chance of A.**

8 4 left: 2 faulty

$\frac{1}{2}$

Mr&Mrs MATHS