GCSE HIGHER · REVISION MAT 5

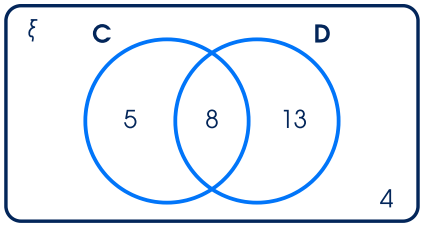
Conditional probability

1 An adult is chosen at random.

Find P(veggie).

	Veggie	Meat	Total
Adult	18	32	50
Child	12	18	30
Total	30	50	80

2 Find P(C | D).



3 Explain why a conditional probability can never be more than 1.

4 A class has 12 boys (5 wear glasses) and 18 girls (6 wear glasses).

A student who wears glasses is chosen.

Find P(girl).

5 P(A) = 0.7 and P(B | A) = 0.2.

Show that P(A ∩ B) = 0.14.

6 A fair spinner numbered 1 to 5 is spun twice.

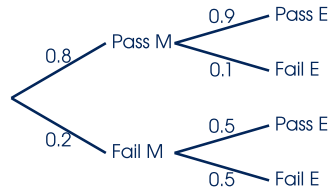
Given at least one 5, find P(two 5s).

7 Explain how a two-way table helps you find a conditional probability.

8 P(pass Maths) = 0.8.

P(pass English | pass Maths) = 0.9.

P(pass English | fail Maths) = 0.5.



Given a pass in English, find P(passed Maths).

ANSWERS · REVISION MAT 5

Conditional probability

1 $\frac{18}{50} = \frac{9}{25}$

2 n(D) = 21

$\frac{8}{21}$

3 It is a part of a group divided by the whole group.

4 11 wear glasses

$\frac{6}{11}$

5 0.7 × 0.2 = 0.14

6 P(at least one 5) = $\frac{9}{25}$

P(two 5s) = $\frac{1}{25}$

$\frac{1}{9}$

7 Read along the row or column for the given condition and use its total as the denominator.

8 P(pass E) = 0.72 + 0.1 = 0.82

$\frac{0.72}{0.82} = 0.878$

Mr&Mrs MATHS