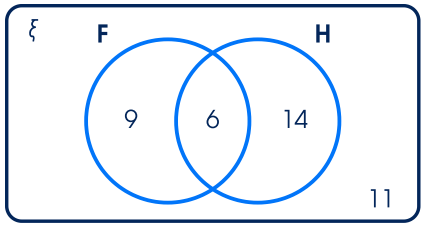
GCSE HIGHER · REVISION MAT 2

Conditional probability

1 Find P(F | H).



2 A Year 11 student is chosen.

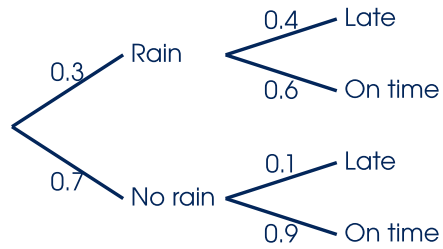
Find P(they chose netball).

	Football	Netball	Hockey	Total
Year 10	18	12	10	40
Year 11	15	14	11	40
Total	33	26	21	80

3 Explain why P(A | B) has n(B) as its denominator.

4 P(rain) = 0.3.

If it rains, P(Jo is late) = 0.4; otherwise 0.1.



Find P(Jo is late).

5 Using the same information, show that P(rain | Jo is late) = $\frac{12}{19}$.

6 Two fair dice are rolled.

Given that the total is 8, find P(a double).

7 P(A) = 0.5, P(B) = 0.4 and P(A ∩ B) = 0.2.

Show that A and B are independent.

8 A bag has 4 red and 6 blue counters.

Two are taken without replacement.

Given at least one is red, find P(both are red).

Mr&Mrs MATHS

ANSWERS · REVISION MAT 2

Conditional probability

1 n(H) = 20

$\frac{6}{20} = \frac{3}{10}$

2 $\frac{14}{40} = \frac{7}{20}$

3 We already know B has happened, so only outcomes in B are possible.

4 0.12 + 0.07

0.19

5 $\frac{0.12}{0.19}$

$= \frac{12}{19}$

6 Totals of 8: (2, 6), (3, 5), (4, 4), (5, 3), (6, 2)

$\frac{1}{5}$

7 $0.5 \times 0.4 = 0.2 = P(A \cap B)$

8 P(both red) = $\frac{2}{15}$

P(at least one red) = $\frac{2}{3}$

$\frac{1}{5}$

Mr&Mrs MATHS