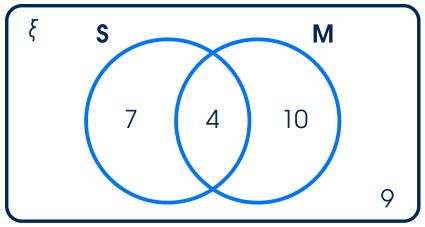
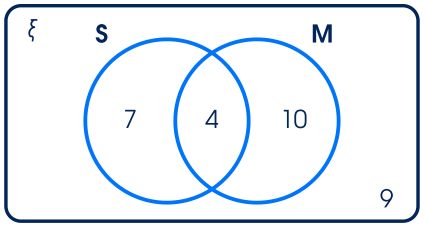
GCSE HIGHER · REVISION MAT 3

Venn diagrams and two-way tables

1 How many are in S?



2 Find P(S ∪ M).



3 Explain what S′ means in a Venn diagram.

4 60 people: 35 like tea, 30 like coffee and 12 like both.

Find P(a person likes neither).

5 Show that 7 people are left-handed.

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

6 One person is chosen at random.

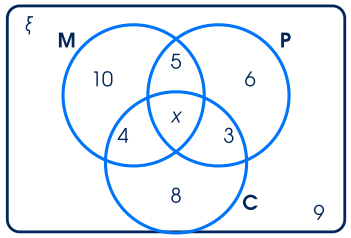
Find P(left-handed girl).

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

7 ξ = {1, 2, ..., 15}, A = factors of 12, B = odd numbers.

Show that A ∩ B = {1, 3}.

8 50 students study Maths (M), Physics (P) or Chemistry (C).



Find the probability that a student studies at least two of the subjects.

ANSWERS · REVISION MAT 3

Venn diagrams and two-way tables

1 11

2 Total 30

$\frac{21}{30} = \frac{7}{10}$

3 Everything that is not in S.

4 35 + 30 − 12 = 53

$\frac{7}{60}$

5 4 + 3 = 7

6 $\frac{3}{60} = \frac{1}{20}$

7 A = {1, 2, 3, 4, 6, 12}

A ∩ B = {1, 3}

8 $x = 50 - 45 = 5$

5 + 4 + 3 + 5 = 17

$\frac{17}{50}$

Mr&Mrs MATHS