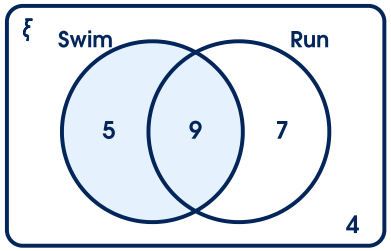
GCSE FOUNDATION · REVISION MAT 5

Venn diagrams and frequency trees

1 The Venn diagram shows the sports some students play.



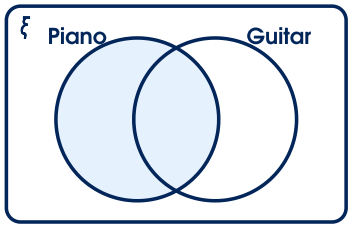
(a) How many play swim?

(b) How many play swim but not run?

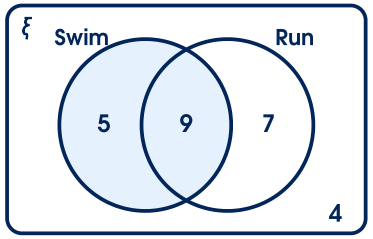
(c) How many play neither?

2 45 people were asked.
7 like both piano and guitar.
15 like only piano. 18 like guitar altogether.

Complete the Venn diagram.

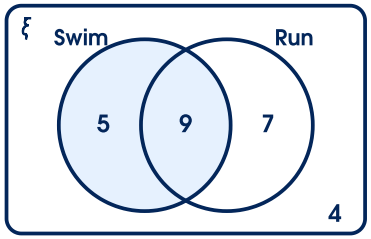


3 The Venn diagram shows the sports some students play.



Explain what the number 9 represents.

4 The Venn diagram shows the sports some students play.



A student is chosen at random.

Show that P(swim or run or both) = $\frac{21}{25}$

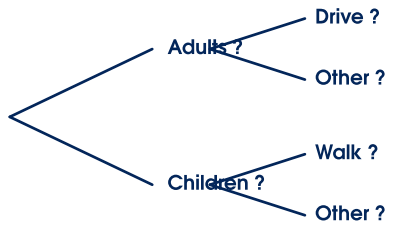
5 ξ = {whole numbers from 1 to 18}
A = {multiples of 6}, B = {odd numbers}

(a) Complete a Venn diagram.

(b) A number is chosen at random. Find P(A ∩ B).

6 200 people were surveyed. $\frac{3}{10}$ were adults. $\frac{4}{5}$ of the adults drive to work. $\frac{2}{7}$ of the children walk to school.

Complete the frequency tree.



One person is chosen at random. Find the probability that they are a child who walks.

ANSWERS · REVISION MAT 5

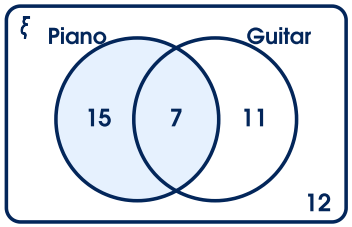
Venn diagrams and frequency trees

1 (a) 5 + 9 = **14**

(b) **5**

(c) **4**

2



Guitar only: 18 – 7 = 11

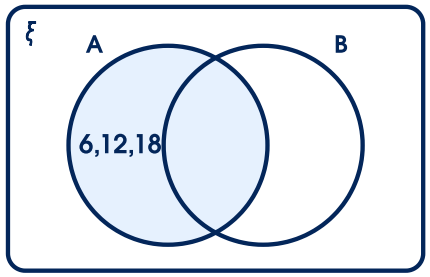
Neither: 12

3 9 students play **both** swim and run.

4 5 + 9 + 7 = 21 out of 25

$\frac{21}{25}$ ✓

5



A only: 6, 12, 18

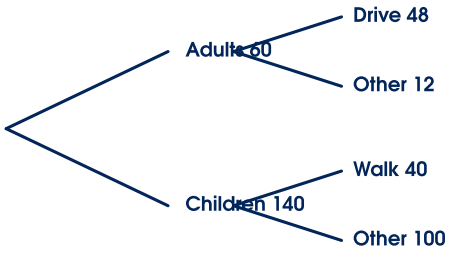
A ∩ B:

B only: 1, 3, 5, 7, 9, 11, 13, 15, 17

Neither: 2, 4, 8, 10, 14, 16

(b) **0**

6



$\frac{1}{5}$

Mr&Mrs MATHS