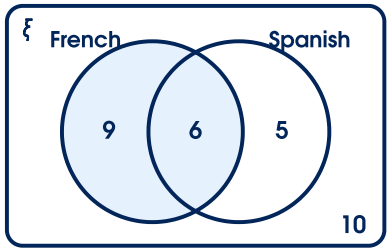
GCSE FOUNDATION · REVISION MAT 3

Venn diagrams and frequency trees

1 The Venn diagram shows the sports some students play.



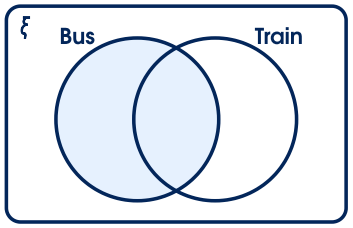
(a) How many play french?

(b) How many play french but not spanish?

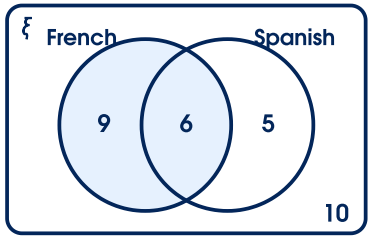
(c) How many play neither?

2 50 people were asked.
8 like both bus and train.
19 like only bus. 17 like train altogether.

Complete the Venn diagram.

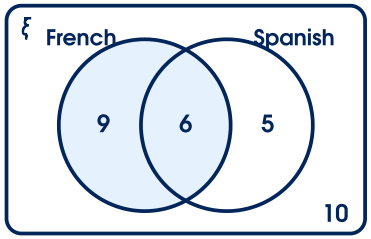


3 The Venn diagram shows the sports some students play.



Explain what the number 6 represents.

4 The Venn diagram shows the sports some students play.



A student is chosen at random.

Show that P(french or spanish or both) = $\frac{2}{3}$

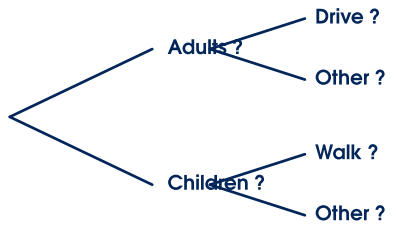
5 ξ = {whole numbers from 1 to 20}
A = {multiples of 5}, B = {odd numbers}

(a) Complete a Venn diagram.

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

6 150 people were surveyed. $\frac{2}{5}$ were adults. $\frac{1}{3}$ of the adults drive to work. $\frac{3}{5}$ 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 3

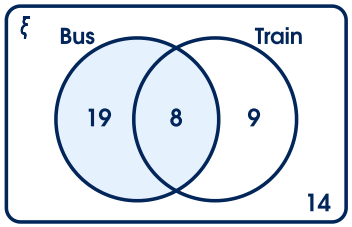
Venn diagrams and frequency trees

1 (a) 9 + 6 = **15**

(b) **9**

(c) **10**

2



Train only: 17 – 8 = 9

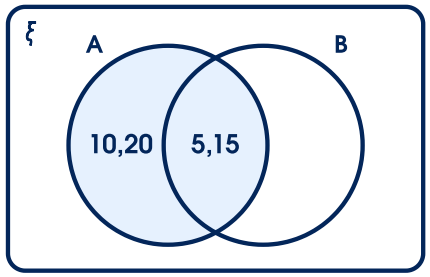
Neither: 14

3 6 students play **both** french and spanish.

4 9 + 6 + 5 = 20 out of 30

$\frac{2}{3}$ ✓

5



A only: 10, 20

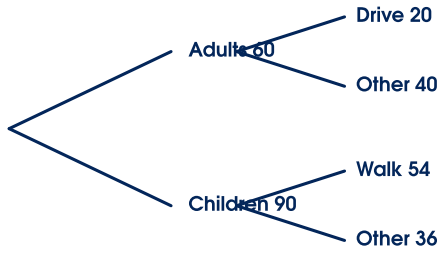
A ∩ B: 5, 15

B only: 1, 3, 7, 9, 11, 13, 17, 19

Neither: 2, 4, 6, 8, 12, 14, 16, 18

(b) $\frac{1}{10}$

6



$\frac{9}{25}$