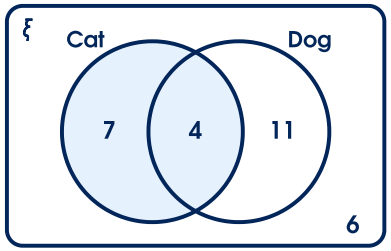
GCSE FOUNDATION · REVISION MAT 2

Venn diagrams and frequency trees

1 The Venn diagram shows the sports some students play.



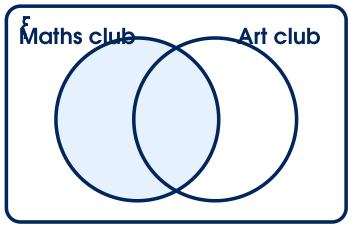
(a) How many play cat?

(b) How many play cat but not dog?

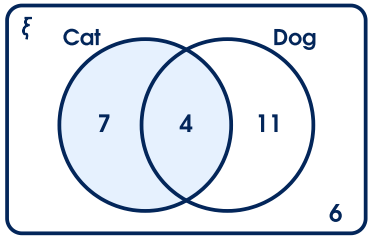
(c) How many play neither?

2 35 people were asked. 6 like both maths club and art club.
12 like only maths club. 15 like art club altogether.

Complete the Venn diagram.

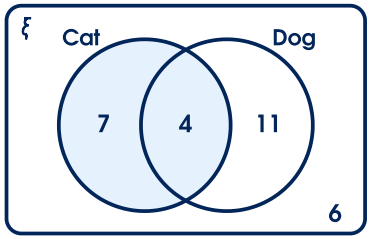


3 The Venn diagram shows the sports some students play.



Explain what the number 4 represents.

4 The Venn diagram shows the sports some students play.



A student is chosen at random.

Show that P(cat or dog or both) = $\frac{11}{14}$

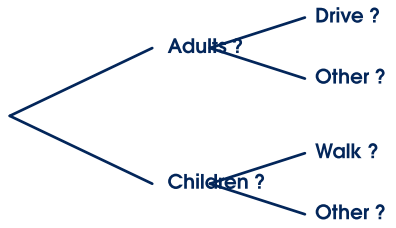
5 ξ = {whole numbers from 1 to 12}
A = {multiples of 4}, B = {even numbers}

(a) Complete a Venn diagram.

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

6 80 people were surveyed. $\frac{1}{4}$ were adults. $\frac{3}{5}$ of the adults drive to work. $\frac{1}{2}$ 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 2

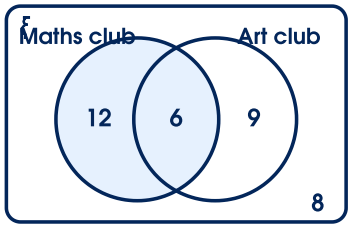
Venn diagrams and frequency trees

1 (a) 7 + 4 = **11**

(b) **7**

(c) **6**

2



Art club only: 15 – 6 = 9

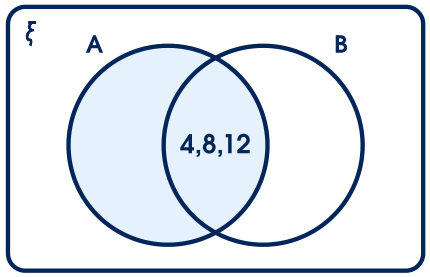
Neither: 8

3 4 students play **both** cat and dog.

4 7 + 4 + 11 = 22 out of 28

$\frac{11}{14}$ ✓

5



A only:

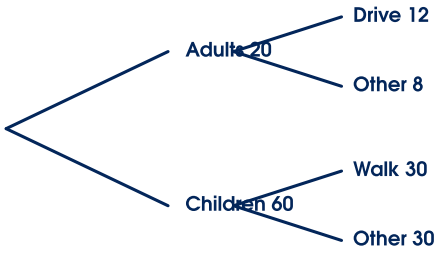
A ∩ B: 4, 8, 12

B only: 2, 6, 10

Neither: 1, 3, 5, 7, 9, 11

(b) $\frac{1}{4}$

6



$\frac{3}{8}$