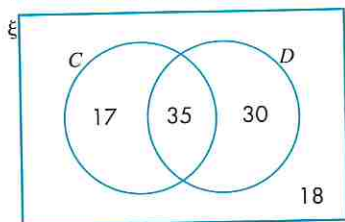


- 4 In a survey, Polly asked 100 people if they liked cats (C) and dogs (D). The results are shown in the Venn diagram.



A person is chosen at random.

a Work out:

i $P(C)$

ii $P(C')$

iii $P(D)$

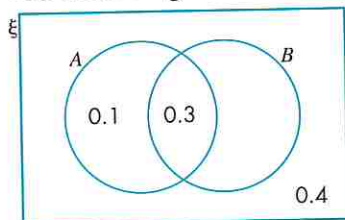
iv $P(D')$

v $P(C \cup D)$

vi $P(C \cap D)$.

b Work out the probability that a person likes dogs but does not like cats.

- 5 The Venn diagram shows some probabilities.



a Copy and complete the Venn diagram.

b Work out:

i $P(B)$

ii $P(A \cup B)$

iii $P(A \cap B)$.

- 6 A snack bar kept a record of the 100 sandwiches it sold one lunch-time.
 20 had only meat in them.
 25 had only cheese in them.
 10 had neither meat nor cheese in them.
 How many sandwiches had:

a some meat in them

b some cheese in them

c either meat or cheese in them?

PS

- 7 $\xi = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$

$A = \{\text{even numbers}\}$ $B = \{\text{numbers greater than 6}\}$

Work out:

a $P(A)$

b $P(B)$

c $P(A \cup B)$

d $P(A \cap B)$.