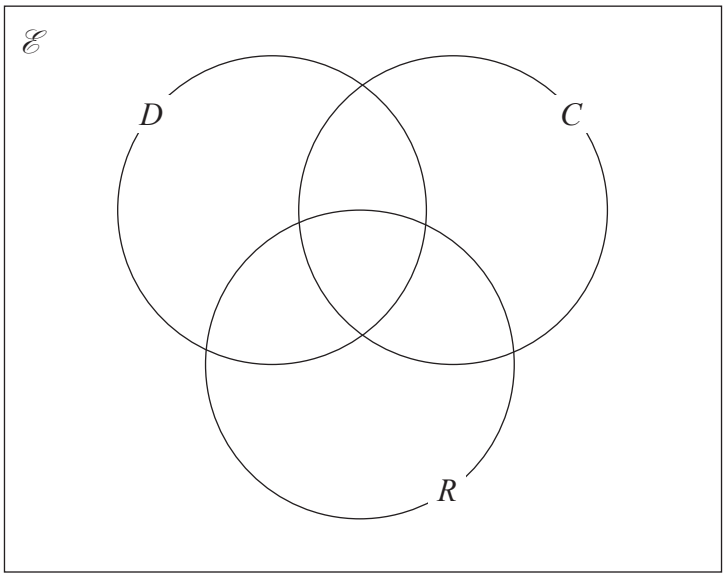
17 Some students in a school were asked the following question.

"Do you have a dog (D), a cat (C) or a rabbit (R)?"

Of these students

28 have a dog
18 have a cat
20 have a rabbit
8 have both a cat and a rabbit
9 have both a dog and a rabbit
x have both a dog and a cat
6 have a dog, a cat and a rabbit
5 have not got a dog or a cat or a rabbit

(a) Using this information, complete the Venn diagram to show the number of students in each appropriate subset.
Give the numbers in terms of x where necessary.



(3)

Given that a total of 50 students answered the question,

(b) work out the value of x.

$x =$ .....

(2)

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(c) Find $n(C' \cap D')$

.....

(1)

(Total for Question 17 is 6 marks)

18

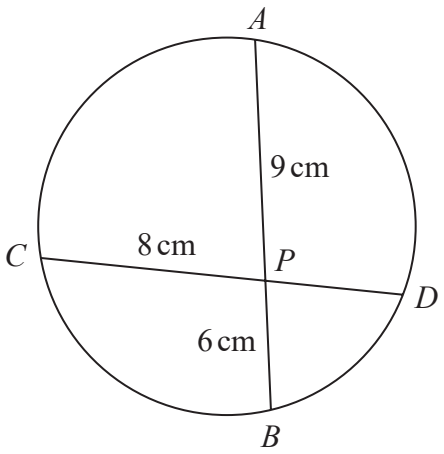


Diagram **NOT** accurately drawn

APB and *CPD* are chords of a circle.

$AP = 9$ cm $PB = 6$ cm $CP = 8$ cm

Calculate the length of *PD*.

..... cm

(Total for Question 18 is 2 marks)

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