25
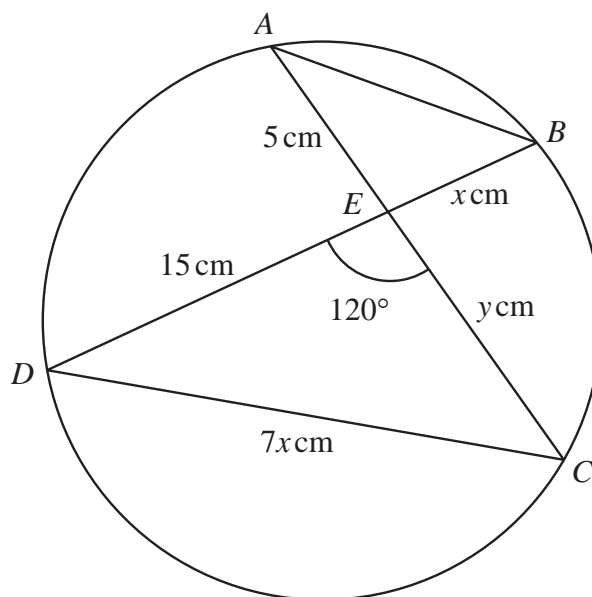

Diagram **NOT** accurately drawn

A, *B*, *C* and *D* are four points on a circle.

The chord *AC* intersects the chord *BD* at *E*

$AE = 5$ cm $EC = y$ cm $DE = 15$ cm $EB = x$ cm $DC = 7x$ cm $\angle DEC = 120°$

(a) Find the value of *x* and the value of *y*
Show your working clearly.

$x =$ ....

$y =$ ....
(6)

Given that

$$\text{area of } \Delta ABE : \text{area of } \Delta CDE = 1 : n$$

(b) find the value of n

$n =$ ....
(2)

(Total for Question 25 is 8 marks)