5

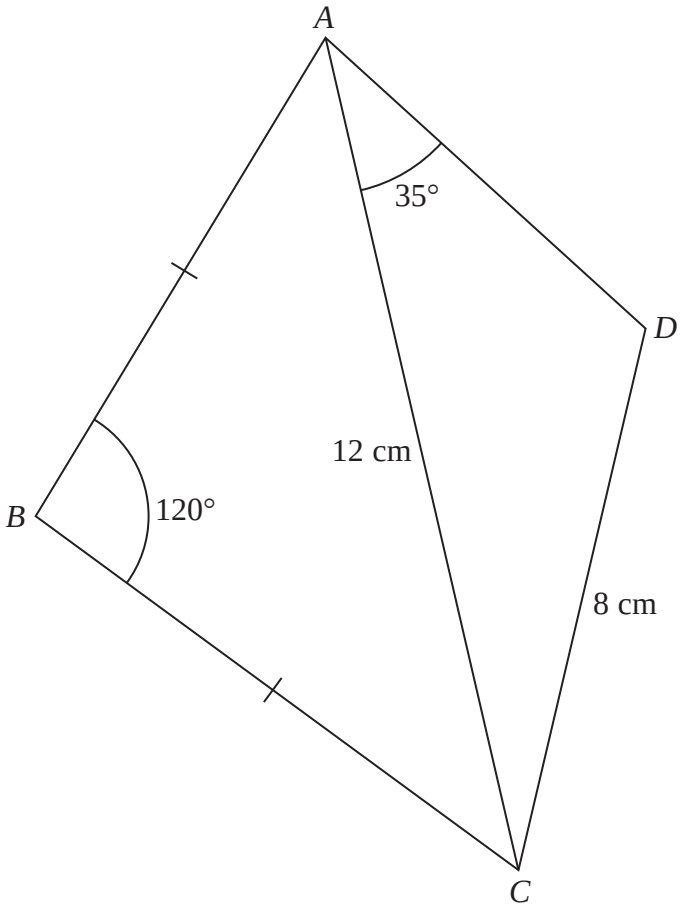

Diagram **NOT** accurately drawn

Figure 2

Figure 2 shows the quadrilateral $ABCD$ in which $AB = BC$.

$DC = 8$ cm $\quad AC = 12$ cm $\quad \angle ABC = 120°$ $\quad \angle CAD = 35°$

Find

(a) the exact length, in cm, of AB.

(2)

Given that angle ADC is obtuse, find

(b) the size, in degrees to 1 decimal place, of angle ADC,

(3)

(c) the area, in cm^2 to 3 significant figures, of the quadrilateral $ABCD$.

(6)

Question 5 continued

Question 5 continued

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

Question 5 continued

(Total for Question 5 is 11 marks)