Answer all ELEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.
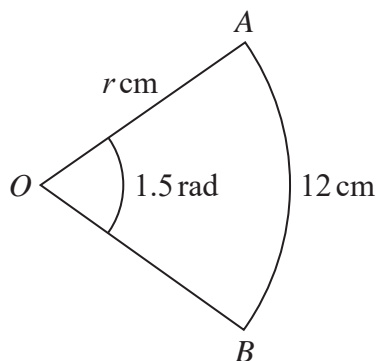
1

Diagram **NOT** accurately drawn

Figure 1

Figure 1 shows sector *AOB* of a circle with centre *O* and radius *r* cm. The angle *AOB* is 1.5 radians and the length of arc *AB* is 12 cm.

Calculate

(a) the value of *r*,

(1)

(b) the area of the sector *AOB*.

(2)

....

....

....

....

....

....

....

....

....

....

(Total for Question 1 is 3 marks)