ARC LENGTH & AREA OF SECTOR OF A CIRCLE

(1)

The diagram shows a circle with centre O.
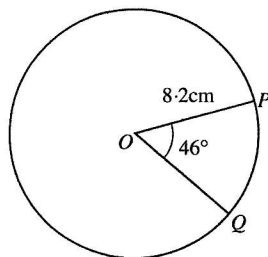

Diagram not drawn to scale.

(a) The circle has a radius of 8·2 cm and $P\widehat{O}Q = 46°$. Calculate the length of the arc PQ.

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[3]

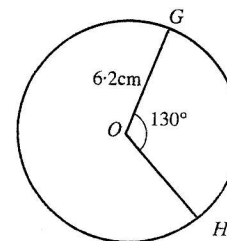(b) Calculate the area of the minor sector POQ

(2)

Diagram not drawn to scale.

The diagram shows a circle with centre O and radius 6·2 cm. The points G and H lie on the circumference of the circle and $G\widehat{O}H = 130°$.

Calculate the length of arc GH, giving your answer to an appropriate degree of accuracy.

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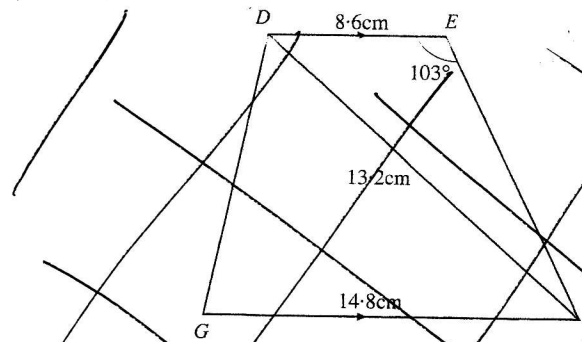
[3]

14.

Diagram not drawn to scale.

The diagram shows a trapezium $DEFG$.
DE is parallel to GF.
$DE = 8·6$ cm, $GF = 14·8$ cm, $DF = 13·2$ cm and $D\widehat{E}F = 103°$.

Turn over.