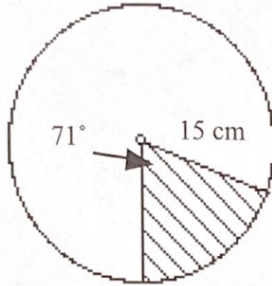


7.6 Arc Length and Sector Area Worksheet

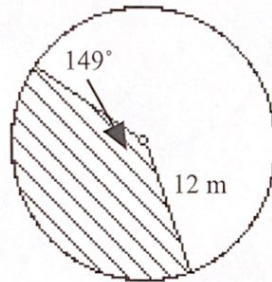
Find the length of the indicated arc, to the nearest tenth.

1.



18.6 cm

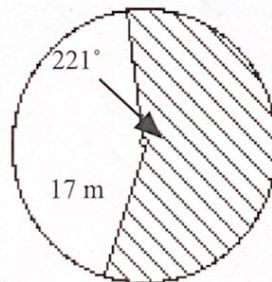
2.



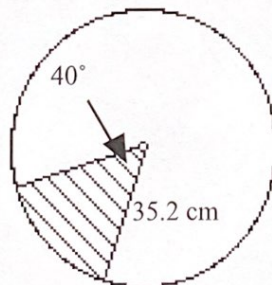
31.2 m

Find the area of the indicated sector, to the nearest tenth.

3.

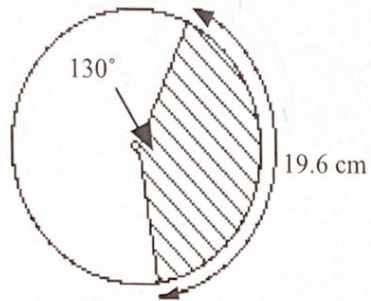
557.4 m²

4.

432.5 cm²

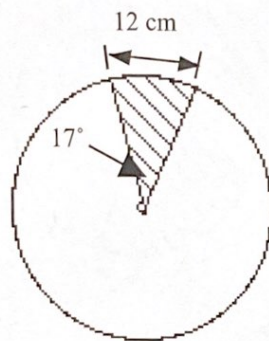
Find the radius. Round the nearest tenth.

5.



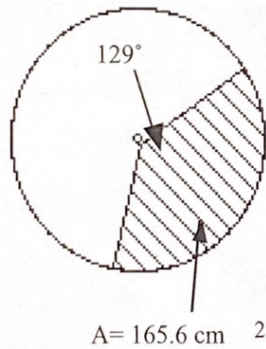
8.6 cm

6.



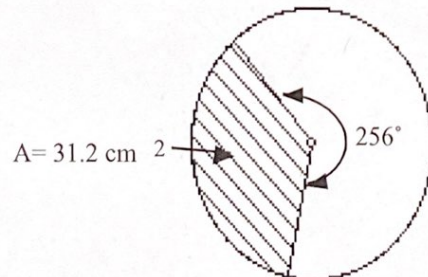
40.4 cm

7.



12.1 cm

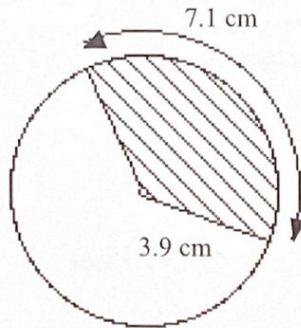
8.



3.7 cm

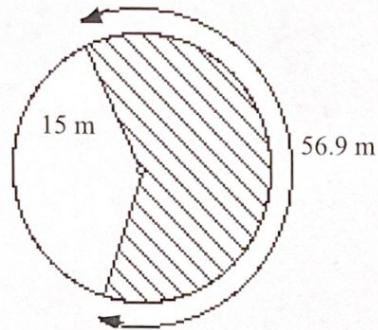
FIND THE ANGLE!

9.



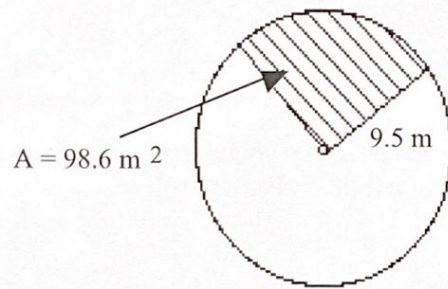
104.3°

10.



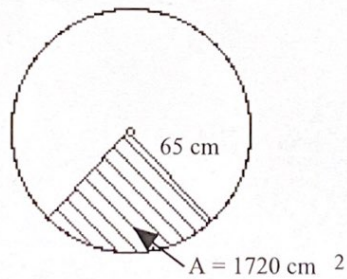
217.3°

11.



125.2°

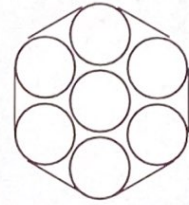
12.



46.7°

13. The cross section of seven circular metal rods bound together by a strap is shown. If the diameter of each rod is 1.8 cm, and 2.5 cm of strap is required to fasten the ends of the strap, how long is the strap? Round to the nearest tenth.


THERE ARE SIX "STRAP SEGMENTS"
 EACH IS TWO RADII OR ONE DIAMETER.




$$\begin{array}{r} \text{So } 6(1.8) = 10.8 \text{ cm} \\ + 2.5 \text{ cm} \\ \hline 13.3 \text{ cm} \end{array}$$


13.3 cm

14. A rectangular pizza, 40 cm by 60 cm, is cut into 24 square pieces. Two round pizzas, each cut into 12 slices, also give 24 pieces. So that the pizzas are the same size, what must be the diameter of the round pizzas?

40 |  $\Rightarrow 2400 \text{ cm}^2$ OF PIZZA

NOTE: # OF PIECES
 IS IRRELEVANT,
 AREA IS WHAT MATTERS.

 = 2400 cm^2 OF PIZZA SO...

 = $1200 \text{ cm}^2 = \pi r^2$
 $r^2 = 381.97$
 $r = 19.54 \text{ cm}$

39.1 cm

$d = 39.1 \text{ cm}$