NAME_____ DATE _____

CIRCUMFERENCE AND LENGTH OF ARC

Complete the following by filling in the values.

1. Find the circumference of a circle of diameter 49 mm. [use $\pi = \frac{22}{7}$]

Solution:

Using $C = \pi D$

$C =$ _____ $\times$ _____

$=$ _____ $\times$ _____ $=$ _____ mm
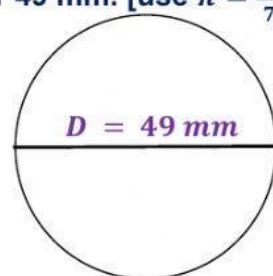
$D = 49\ mm$

2. Calculate the circumference of a circle given a radius of 21 cm.

Solution

Using $C = 2\pi r$

$C =$ ___ $\times$ ____ $\times$ _____

$C =$ ____ $\times$ ___ $\times$ ____ $=$ _____cm

$r = 21cm$
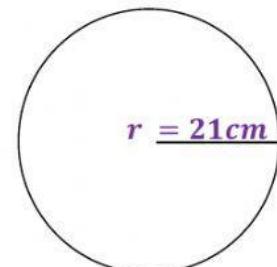
3. Calculate the arc length of the sector shown.

Solution: Using $l = 2\pi r \frac{\theta}{360°}$

$l =$ ___ $\times$ ____ $\times$ ___ $\times \dfrac{°}{360°}$

$l =$ ___ $\times$ ____ $\times$ ___ $\times \dfrac{3}{8} =$ ____

$=$ _____ m

r = 63 m

A'

B
135°

A
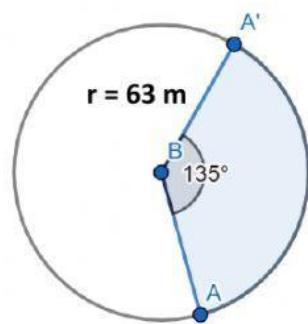
4. Calculate the arc length of the sector shown.
[angle = 240º]

Solution: Using $l = 2\pi r \frac{\theta}{360°}$

$l =$ ___ $\times$ ____ $\times$ ___ $\times \dfrac{°}{360°}$

$l =$ ___ $\times$ ____ $\times$ ___ $\times \dfrac{2}{3} =$ ____

$=$ _____ m

r = 14 m

A'

B
240°

A