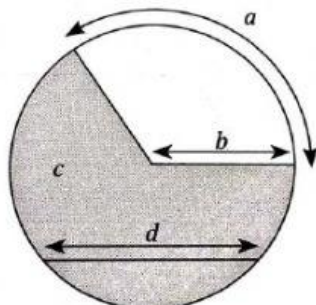


Revision

Chapter 5 – Circles

1. Match the parts of circle with their correct names based on the diagram below.



[4 marks]

Answer:

a

Circumference

Arc

b

Chord

c

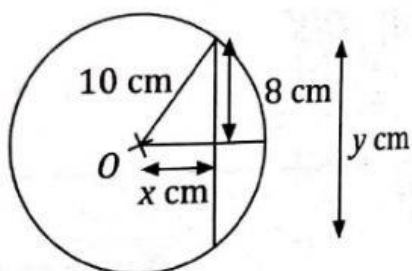
Radius

Sector

d

Semicircle

2. O is the centre of circle. Find the values of x and y.



$$x = \sqrt{10^2 - 4^2}$$

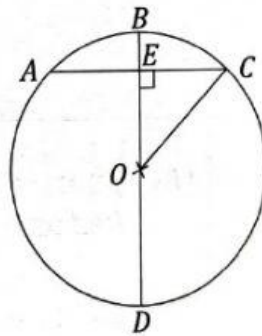
$$= \sqrt{84}$$

$$= \boxed{9} \text{ cm}$$

$$y = 2 \times \boxed{9}$$

$$= \boxed{18} \text{ cm}$$

3. The following diagram shows a circle with centre O and radius 13cm. AEC and BEOD are straight lines.



Given $AEC = 24\text{cm}$, find the length, in cm of DOE.

$$EC = \frac{1}{2} \times \boxed{}$$

$$= \boxed{} \text{ cm}$$

$$EO = \sqrt{^2 - ^2}$$

$$= \sqrt{}$$

$$= \boxed{} \text{ cm}$$

$$DOE = OD + EO$$

$$= \boxed{} + \boxed{}$$

$$= \boxed{} \text{ cm}$$

4. Calculate the circumference of the circles.

Given radius = 9cm [$\pi = 3.142$]

$$\text{Circumference} = 2\pi r$$

$$= 2 \times 3.142 \times \square$$

$$= \square \text{ cm}$$

5. Calculate the area of the circle.

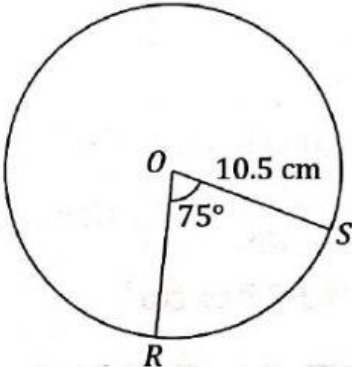
Given radius = 14 cm [$\pi = \frac{22}{7}$]

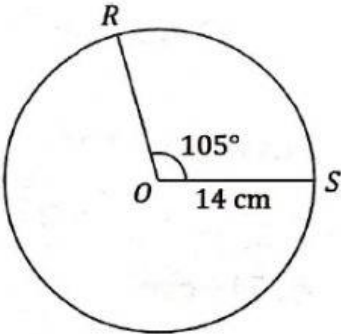
$$\text{Area} = \pi r^2$$

$$= \pi \times \square^2$$

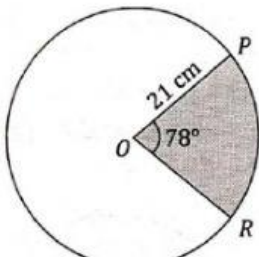
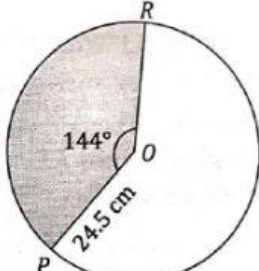
$$= \square \text{ cm}^2$$

6. Calculate the length, in cm of the following arc RS. Give your answer correct to two decimal places. [$\pi = \frac{22}{7}$]

| | |
|---|---|
|  | $\text{Arc RS} = \pi \times r^2 \times \frac{\theta}{360}$ $= \square \text{ cm}$ |
|---|---|

| | |
|---|--|
|  | $\text{Arc RS} = \frac{105}{360} \times 2\pi \times 14$ $= \frac{49\pi}{6} \text{ cm}$ |
|---|--|

5. Calculate the area, in cm^2 of the following sector POR. Give your answer correct to one decimal place. [$\pi = \frac{22}{7}$]

| | |
|--|---|
|  | $\text{Area sector POR} = \frac{78}{360} \times \pi \times 21^2$ $= \frac{1078\pi}{15} \text{ cm}^2$ |
|  | $\text{Area sector POR} = \frac{144}{360} \times \pi \times 24.5^2$ $= \frac{1078\pi}{15} \text{ cm}^2$ |