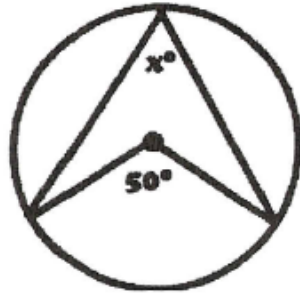


Circle Geometry

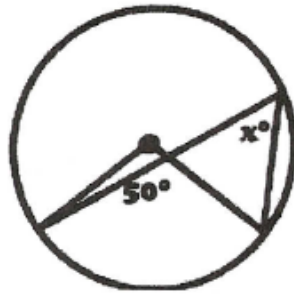
Review #1

1.



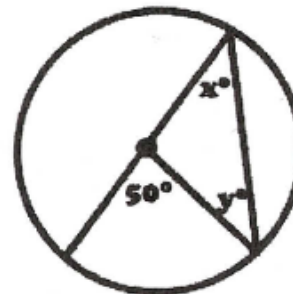
$x^\circ = \underline{25^\circ}$

2.



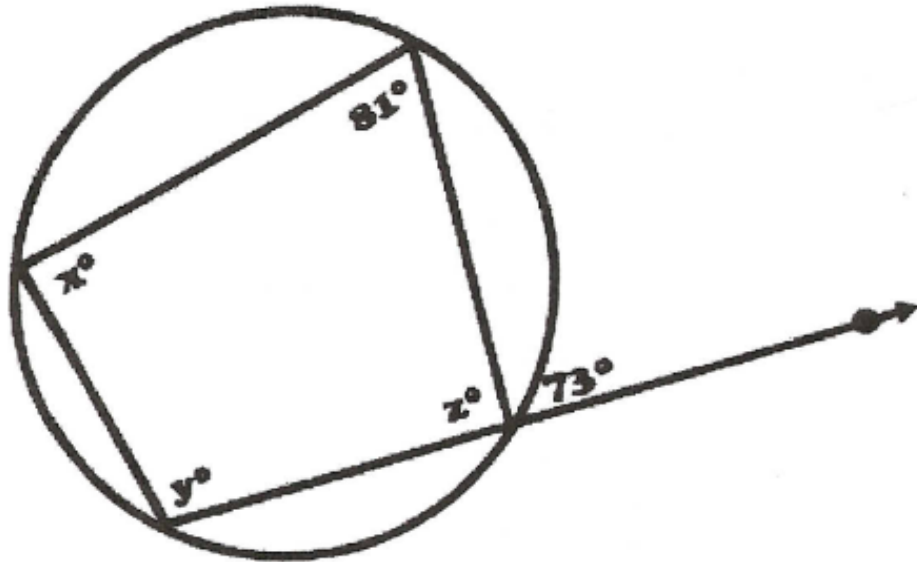
$x^\circ = \underline{25^\circ}$

3.



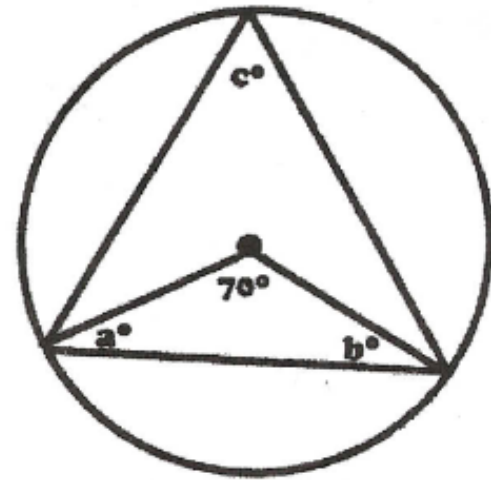
$x^\circ = \underline{25^\circ}$     $y^\circ = \underline{25^\circ}$

4.



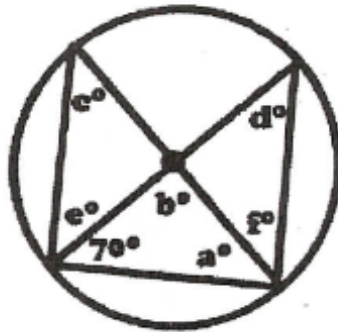
$$\begin{aligned} x^\circ &= \underline{\underline{73^\circ}} \\ y^\circ &= \underline{\underline{99^\circ}} \\ z^\circ &= \underline{\underline{107^\circ}} \end{aligned}$$

5.



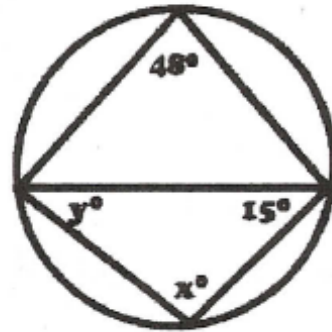
$$\begin{aligned} a^\circ &= \underline{\underline{55^\circ}} \\ b^\circ &= \underline{\underline{55^\circ}} \\ c^\circ &= \underline{\underline{35^\circ}} \end{aligned}$$

6.



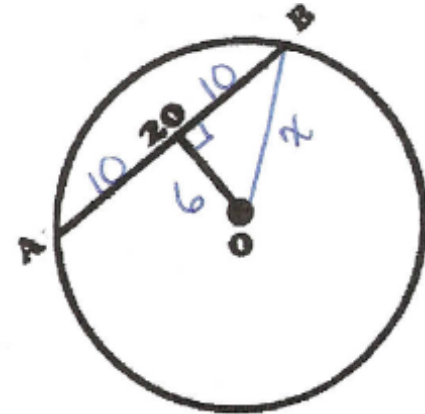
$$\begin{aligned} a^\circ &= \underline{70^\circ} \\ b^\circ &= \underline{40^\circ} \\ c^\circ &= \underline{20^\circ} \\ d^\circ &= \underline{20^\circ} \\ e^\circ &= \underline{20^\circ} \\ f^\circ &= \underline{20^\circ} \end{aligned}$$

7.



$$\begin{aligned} x^\circ &= \underline{132^\circ} \\ y^\circ &= \underline{33^\circ} \end{aligned}$$

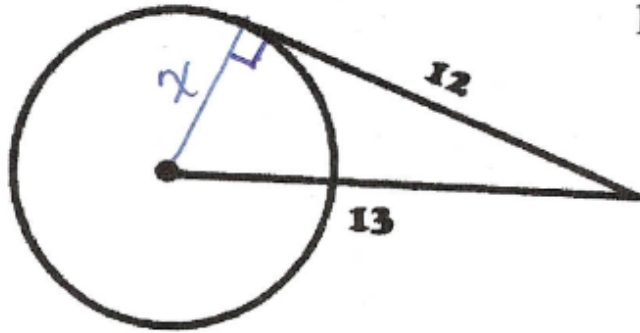
8.



Find the radius.

$$\begin{aligned} c^2 &= a^2 + b^2 \\ c^2 &= (6)^2 + (10)^2 \\ c^2 &= 36 + 100 \\ c^2 &= 136 \\ c &= \sqrt{136} \\ c &= 11.7 \text{ or } 2\sqrt{34}. \end{aligned}$$

9.



Find the radius.

$$c^2 = a^2 + b^2$$

$$(13)^2 = (12)^2 + (x)^2$$

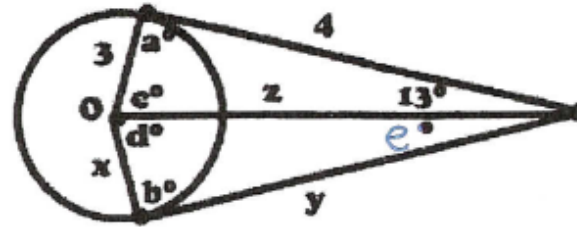
$$169 = 144 + x^2$$

$$169 - 144 = x^2$$

$$25 = x^2$$

$$5 = x$$

10.



$a^\circ = \frac{90^\circ}{}$	$x = \frac{3}{}$
$b^\circ = \frac{90^\circ}{}$	$y = \frac{4}{}$
$c^\circ = \frac{77^\circ}{}$	$z = \frac{5}{}$
$d^\circ = \frac{77^\circ}{}$	
$e^\circ = \frac{13^\circ}{}$	

To find "z":

$$c^2 = a^2 + b^2$$

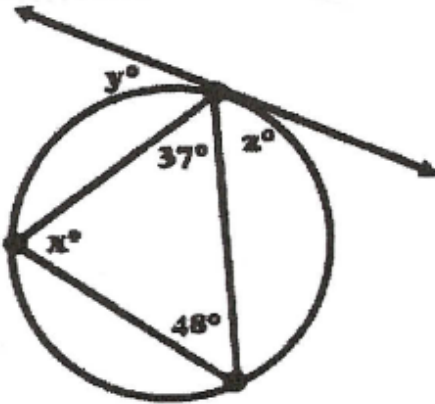
$$c^2 = (3)^2 + (4)^2$$

$$c^2 = 9 + 16$$

$$c^2 = 25$$

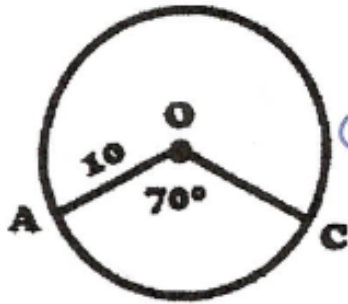
$$c = 5$$

11.



$x^\circ = \frac{95^\circ}{}$
$y^\circ = \frac{48^\circ}{}$
$z^\circ = \frac{95^\circ}{}$

12.



Find the Sector Area and the Arc Length.

①

$$\begin{aligned}
 A &= \pi r^2 \\
 &= \pi(10)^2 \\
 &= \pi(100) \\
 &= 314.16
 \end{aligned}$$

②

$$\begin{aligned}
 \frac{SA}{A_{ofC}} &= \frac{\text{Angle}}{360^\circ} \\
 \frac{SA}{314.16} &= \frac{70^\circ}{360^\circ} \\
 \frac{(SA)(360^\circ)}{360^\circ} &= \frac{(314.16)(70^\circ)}{360^\circ} \\
 SA &= 61.09 \text{ units}^2
 \end{aligned}$$

②

$$\begin{aligned}
 C &= 2\pi r \\
 &= 2\pi(10) \\
 &= 62.83
 \end{aligned}$$

$$\begin{aligned}
 \frac{A.L}{C} &= \frac{\text{Angle}}{360^\circ} \\
 \frac{A.L}{62.83} &= \frac{70^\circ}{360^\circ} \\
 \frac{(A.L)(360^\circ)}{360^\circ} &= \frac{(62.83)(70^\circ)}{360^\circ} \\
 A.L &= 12.22 \text{ units}
 \end{aligned}$$