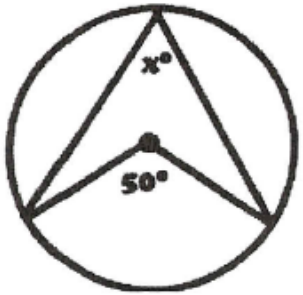
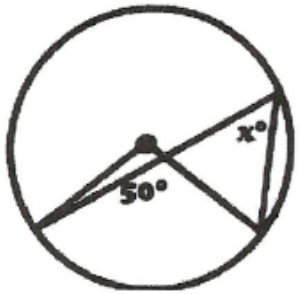
Circle Geometry **Review #1**

1.



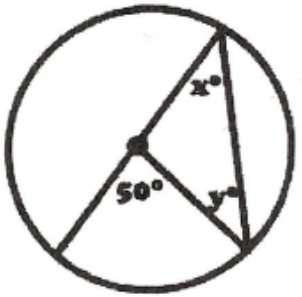
$x^\circ =$ 25°

2.



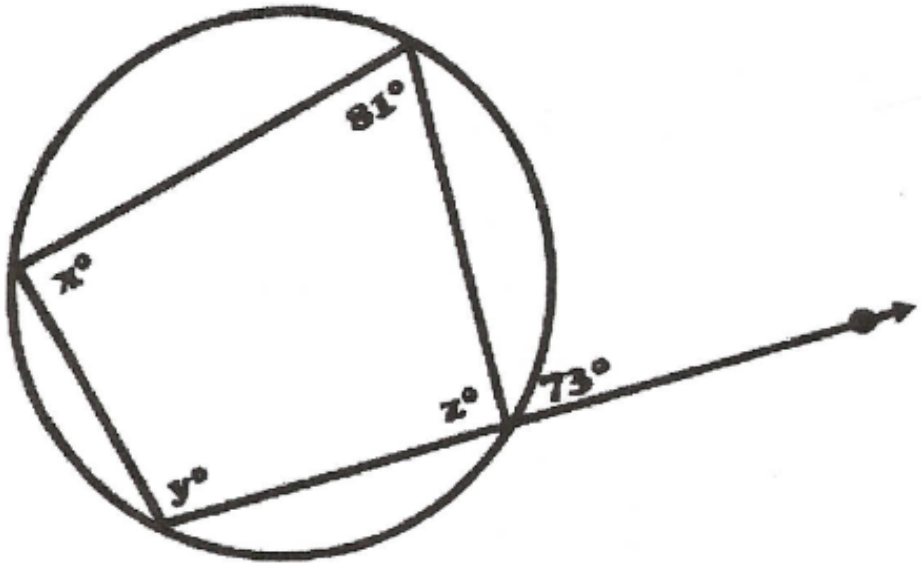
$x^\circ =$ 25°

3.



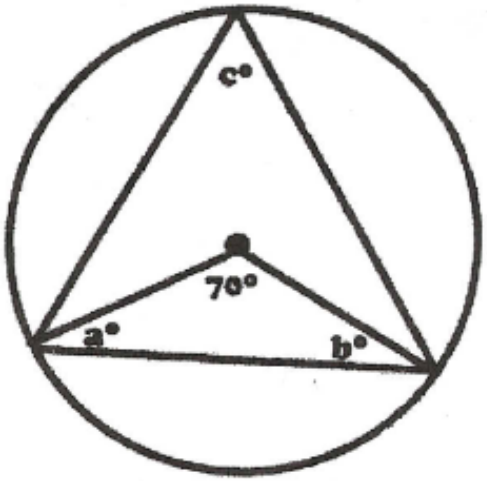
$x^\circ =$ 25° $y^\circ =$ 25°

4.



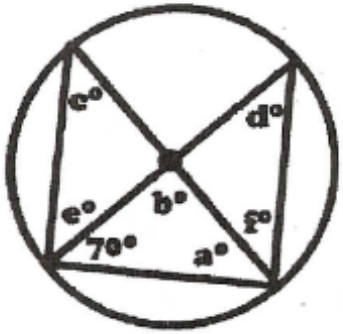
x° = 73°
y° = 99°
z° = 107°

5.



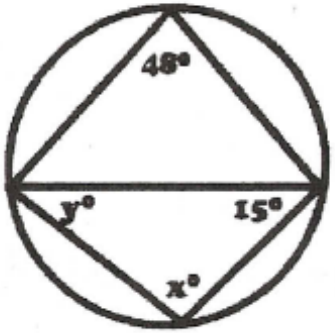
a° = 55°
b° = 55°
c° = 35°

6.



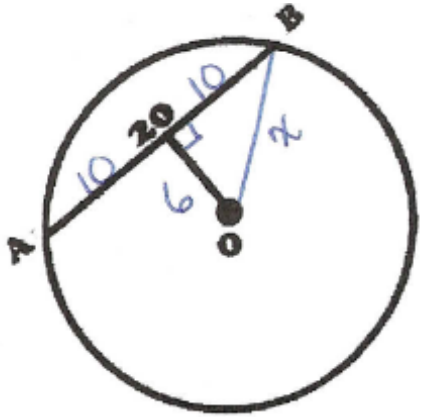
a° = 70°
b° = 40°
c° = 20°
d° = 20°
e° = 20°
f° = 20°

7.



x° = 132°
y° = 33°

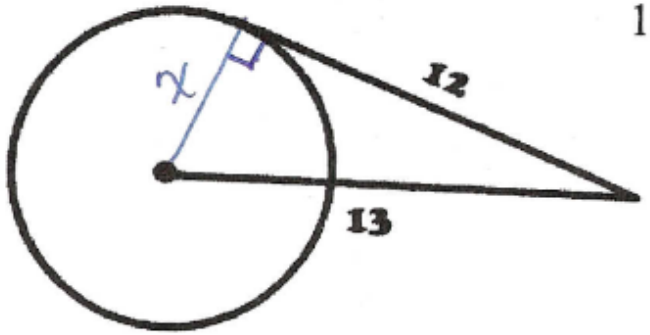
8.



Find the radius.

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

9.



Find the radius.

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

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

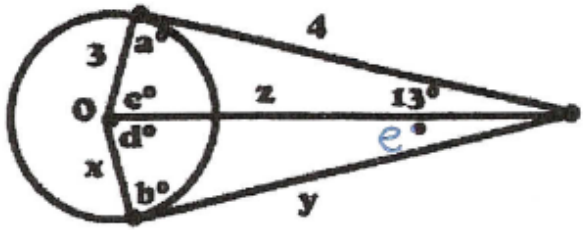
$169 = 144 + x^2$

$169 - 144 = x^2$

$25 = x^2$

$5 = x$

10.



a° = 90°
b° = 90°
c° = 77°
d° = 77°
e° = 13°

x = 3
y = 4
z = 5

To find "z":

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

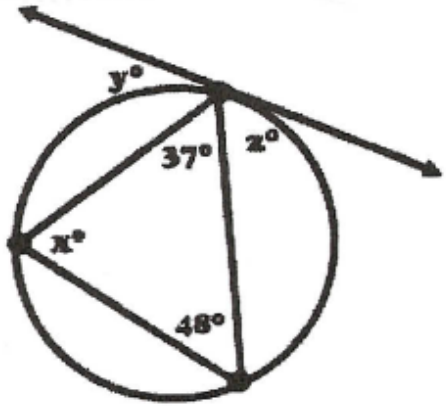
$c^2 = (3)^2 + (4)^2$

$c^2 = 9 + 16$

$c^2 = 25$

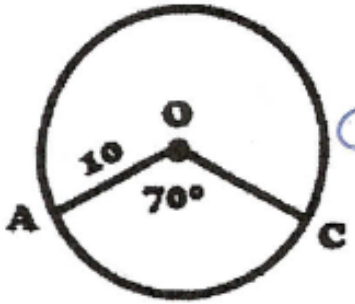
$c = 5$

11.



x° = 95°
y° = 48°
z° = 95°

12.



① ② Find the Sector Area and the Arc Length.

① $A = \pi r^2$
$= \pi(10)^2$
$= \pi(100)$
$= 314.16$

$\frac{SA}{AofC} = \frac{Angle}{360°}$

$\frac{SA}{314.16} = \frac{70°}{360°}$

$\frac{(SA)(360°)}{360°} = \frac{(314.16)(70°)}{360°}$

$SA = 61.09 \text{ units}^2$

② $C = 2\pi r$
$= 2\pi(10)$
$= 62.83$

$\frac{A.L}{C} = \frac{Angle}{360°}$

$\frac{A.L}{62.83} = \frac{70°}{360°}$

$\frac{(AL)(360°)}{360°} = \frac{(62.83)(70°)}{360°}$

$AL = 12.22 \text{ units}$.