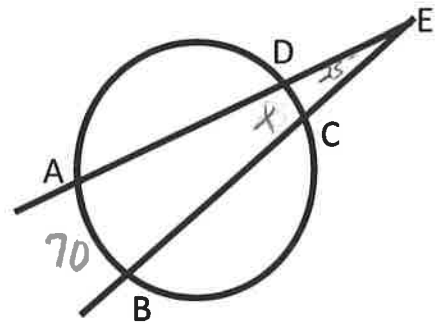


1.14 $unit^2$

- a. $m\angle E = 25$, $mAB = 70$. Find mDC .



$$25 = \frac{1}{2}(70 - x)$$

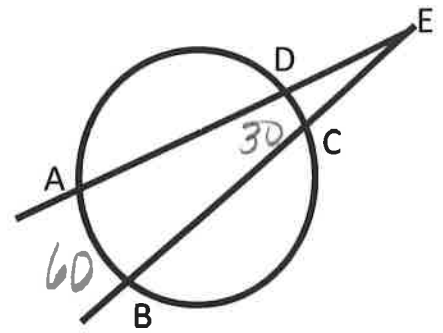
$$50 = 70 - x$$

$$-20 = -x$$

$$20 = x$$

20°

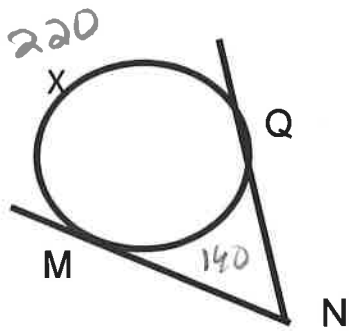
b. $m\widehat{AB} = 60$, $m\widehat{DC} = 30$. Find $m\angle E$.



$$m\angle E = \frac{1}{2}(60 - 30)$$

$$m\angle E = 15^\circ$$

15°



$$m\angle MXQ = 220$$

Find $m\angle N$.

$$\begin{array}{r} 360 \\ -220 \\ \hline 140 \end{array}$$

$$m\angle N = \frac{1}{2} (220 - 140)$$

$$m\angle N = \frac{1}{2} (80)$$

$$m\angle N = 40^\circ$$

40°

Write an equation of the circle in which the diameter has endpoints of $(-3, 2)$ and $(5, -6)$.

$$\frac{-3+5}{2}$$

$$\frac{2+(-6)}{2}$$

$$(1, -2)$$

$$d = \sqrt{(1 - (-3))^2 + (-2 - 2)^2}$$

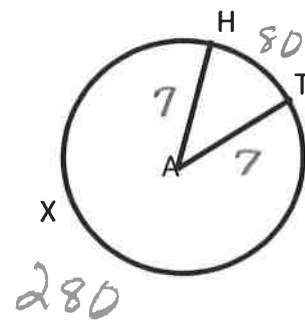
$$d = \sqrt{16 + 16}$$

$$d = \sqrt{32}$$

$$(x-1)^2 + (y+2)^2 = 32$$

$$(x - 1)^2 + (y + 2)^2 = 32^\circ$$

Given $\odot A$ has a diameter = 14cm and the $m\widehat{HXT} = 280$. Find the length of the arc HXT.

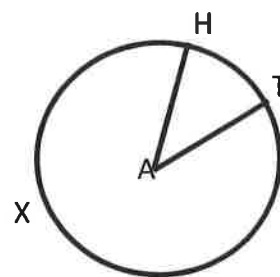


$$\frac{AL}{2\pi(7)} = \frac{280}{360}$$

$$AL = 34.21 \text{ cm}$$

34.21cm

b. HT has a length of 8cm. If $m\angle A = 50$, find the radius.



$$\frac{AL}{2\pi r} = \frac{m^\circ}{360}$$

$$\frac{8}{2\pi r} = \frac{50}{360}$$

$$2880 = 100\pi r$$

$$\frac{2880}{100\pi} = r$$

$$9.17 = r$$

9.17cm

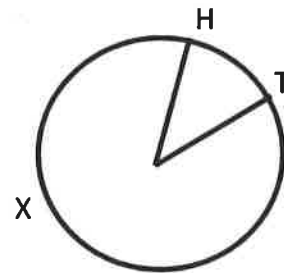
The area of the sector is 64π in² and $\angle H = 20^\circ$. Find the radius of the circle.

$$\frac{64\pi}{\pi r^2} = \frac{20}{360}$$

$$20r^2 = 23040$$

$$\sqrt{r^2} = \sqrt{1152}$$

$$r = 33.94$$



33.94cm

Determine each center and radius:

$$(x + 3)^2 + (y - 8)^2 = 90$$

$$\text{Ctr } -3, 8$$

$$r = 3\sqrt{10}$$

Center $(-3, 8)$
Radius = $3\sqrt{10}$

Determine each center and radius:

$$x^2 + y^2 + 2x + 1 = 75$$

$$x^2 + 2x + \boxed{1} + y^2 = 74$$

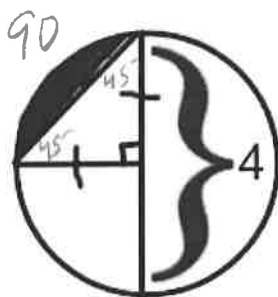
$$(x+1)^2 + y^2 = 75$$

2.37

$$(-1, 0) \ 5\sqrt{3}$$

Center $(-1, 0)$
 Radius = $5\sqrt{3}$

Find the area of the shaded region.



$$\frac{AS}{\pi r^2} = \frac{m\hat{A}}{360}$$

$$\frac{AS}{\pi (2)^2} = \frac{90}{360}$$

$$360\pi = 360AS$$

$$\pi = AS$$

$$3.14 = AS$$

$$3.14 - \frac{1}{2}(2)(2)$$

$$3.14 - 2$$

$$\textcircled{1.14}$$