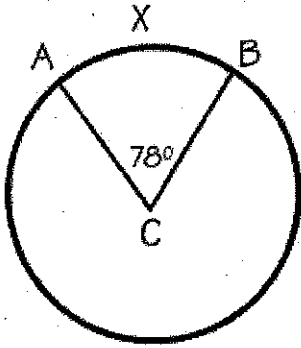


Geometry
Homework: Circles

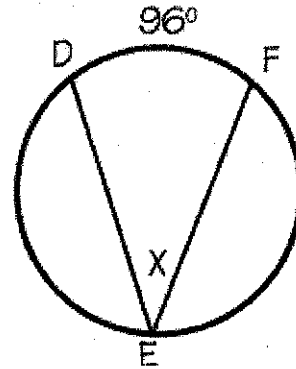
Name: Key
Date: _____

What do you know so far...
Find x for each of the following.

1. $x = \underline{78^\circ}$

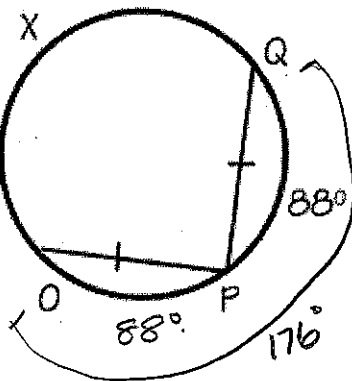


2. $x = \underline{48^\circ}$



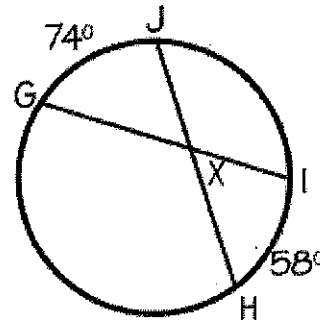
$\frac{96}{2} = 48^\circ$

3. $x = \underline{184^\circ}$



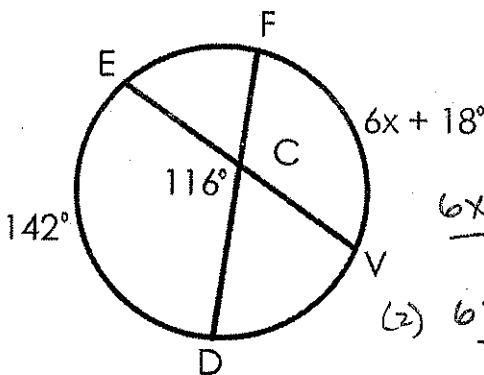
$\frac{360 - 176}{2} = 184^\circ$

4. $x = \underline{66^\circ}$



$\frac{74 + 58}{2} = x$
 $\frac{132}{2} = x$
 $66^\circ = x$

5. $x = \underline{12}$



$\frac{6x + 18 + 142}{2} = 116$

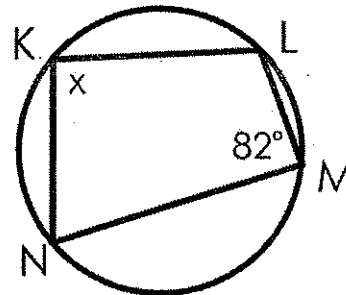
(2) $\frac{6x + 160}{2} = 116$ (2)

$6x + 160 = 232$

$6x = 72$

$x = 12$

6. $x = \underline{98^\circ}$

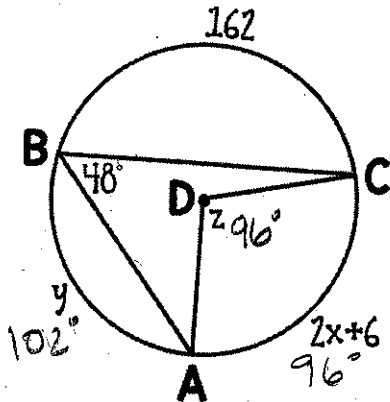


$\frac{180 - 82}{2} = x$
 $\frac{98}{2} = x$

7. $x = \underline{45}$

$y = \underline{102^\circ}$

$z = \underline{96^\circ}$



$2(48) = 2x + 6$

$96 = 2x + 6$

$90 = 2x$

$\boxed{45 = x}$

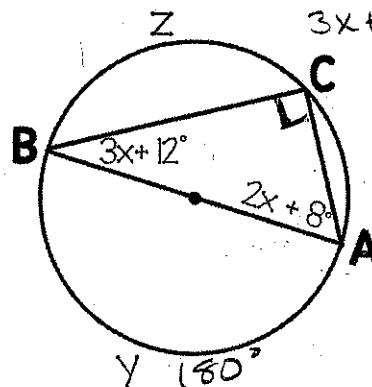
$360 - 162 - 96 = y$

$\boxed{102 = y}$

8. $x = \underline{14}$

$y = \underline{180^\circ}$

$z = \underline{72^\circ}$



$3x + 12 + 2x + 8 + 90 = 180$

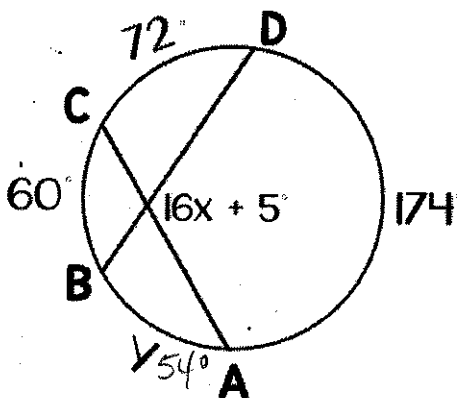
$5x + 110 = 180$

$5x = 70$

$\boxed{x = 14}$

9. $x = \underline{7}$

$y = \underline{54^\circ}$



$\frac{60 + 174}{2} = 16x + 5$

$117 = 16x + 5$

$112 = 16x$

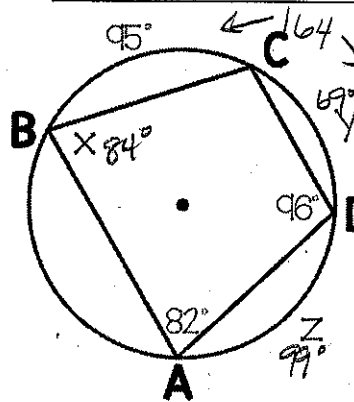
$\boxed{7 = x}$

$\begin{array}{r} 360 \\ - 60 \\ - 72 \\ - 174 \\ \hline \end{array}$

10. $x = \underline{84^\circ}$

$y = \underline{69^\circ}$

$z = \underline{99^\circ}$



$\begin{array}{r} 180 \\ - 96 \\ \hline 84 \end{array}$

$\begin{array}{r} 164 \\ - 95 \\ \hline 69 \end{array}$

$\begin{array}{r} 168 \\ - 69 \\ \hline 99 \end{array}$

11. $a = \underline{98^\circ}$

$b = \underline{105^\circ}$

$c = \underline{46^\circ}$

$d = \underline{36^\circ}$

$e = \underline{67^\circ}$

$f = \underline{82^\circ}$

$g = \underline{121^\circ}$

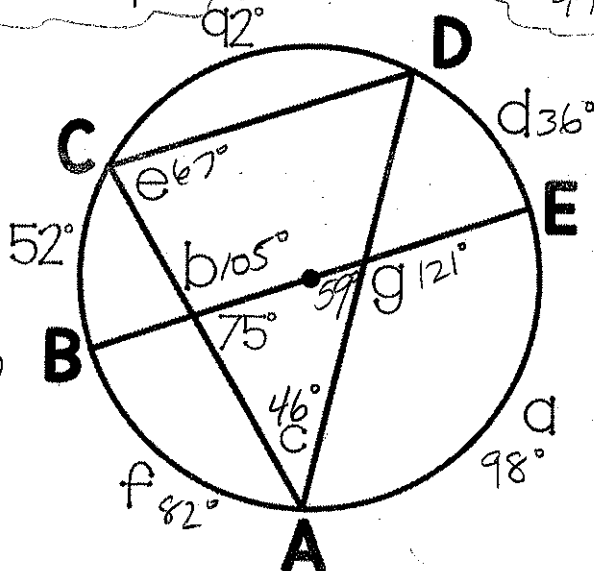
* Look for linear pairs

$92/2 = 46$

$\begin{array}{r} 180 \\ - 52 \\ - 92 \\ \hline 36 \end{array}$

$(2) \frac{36 + f}{2} = 59(2)$

$36 + f = 118$
 $f = 82$



$\frac{98 + 36}{2} = e$

$67 = e$