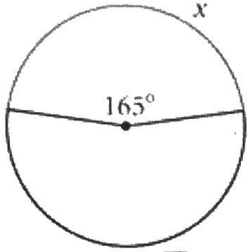


Skills Practice:

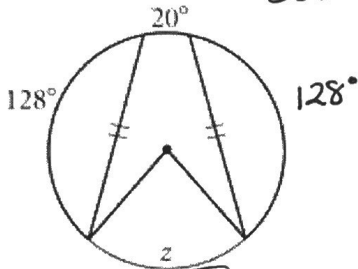
Solve for the missing variables.

1.  $x = ?$   $165^\circ$

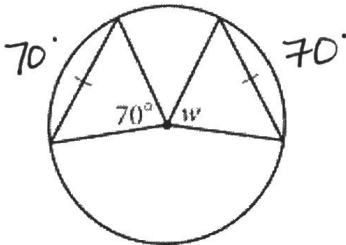


2.  $z = ?$   $84^\circ$

$360 - (128 + 128 + 20)$



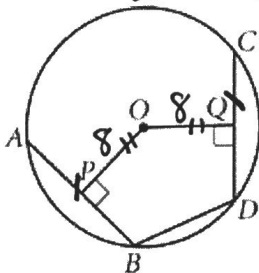
3.  $w = ?$   $70^\circ$



4.  $AB = CD$

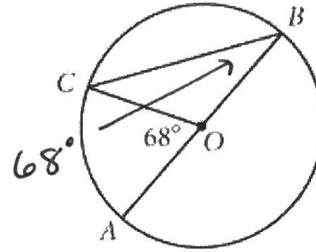
$PO = 8$  cm

$OQ = ?$   $8$  cm



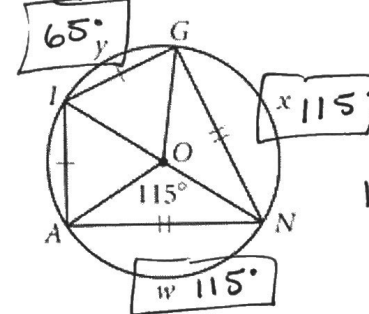
5.  $\overline{AB}$  is a diameter.

Find  $m\widehat{AC}$  and  $m\angle B$ .



$m\widehat{AC} = 68^\circ$   
 $m\angle B = \frac{68}{2} = 34^\circ$

6.  $GIAN$  is a kite. Find  $w$ ,  $x$ , and  $y$ .



$$\begin{array}{r} 360 \\ - 115 \\ - 115 \\ \hline 130 \end{array}$$

$130/2 = 65^\circ$

7.  $AB = 6$  cm

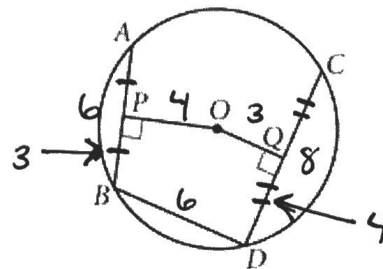
$OP = 4$  cm

$CD = 8$  cm

$OQ = 3$  cm

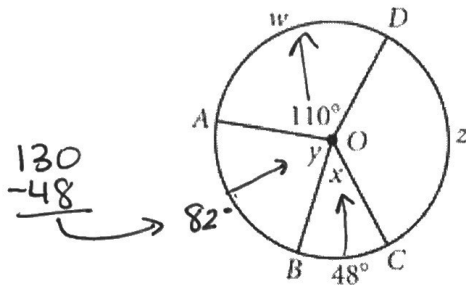
$BD = 6$  cm

What is the perimeter of  $OPBDQ$ ?



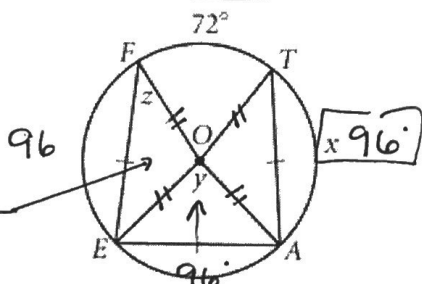
$P = 3 + 4 + 3 + 4 + 6 = 20$  cm

8.  $m\widehat{AC} = 130^\circ$   
Find  $w, x, y,$  and  $z$ .

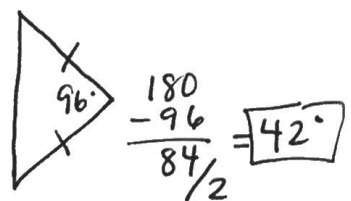


$$\begin{aligned} x &= 48^\circ \\ y &= 82^\circ \\ w &= 110^\circ \\ z &= 360 \\ &\quad - 110 \\ &\quad - 82 \\ &\quad - 48 \\ &\hline &120^\circ \end{aligned}$$

9.  $x = ?$   $96^\circ$   
 $y = ?$   $96^\circ$   
 $z = ?$   $42^\circ$

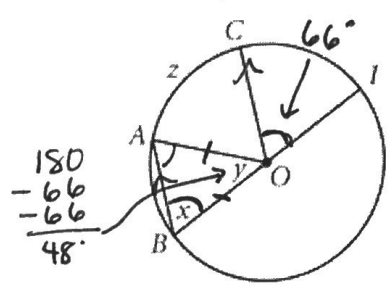


$$360 - 72 = 288 / 3 = 96$$



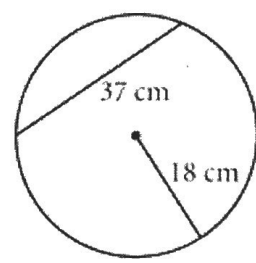
$$\frac{180 - 96}{2} = 42^\circ$$

10.  $AB \parallel CO, m\widehat{CI} = 66^\circ$   
Find  $x, y,$  and  $z$ .



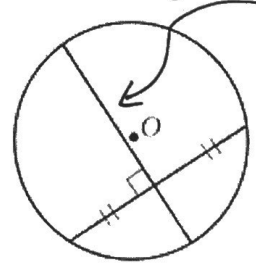
$$\begin{aligned} x &= 66^\circ \\ y &= 48^\circ \\ z &= 66^\circ \\ 180 - 48 - 66 &= 66 \end{aligned}$$

11. What's wrong with this picture?



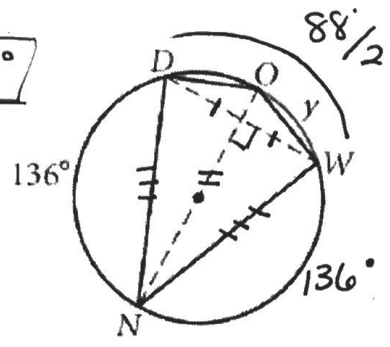
The diameter is the longest chord of a circle. But  $18 + 18 = 36$ . 37 is larger. ☹️

12. What's wrong with this picture?



The chord is not a diameter therefore you can't have a  $\perp$  bisector.

13.  $y = 44^\circ$



$$\begin{aligned} 360 \\ - 136 \\ - 136 \\ \hline 88 \end{aligned}$$