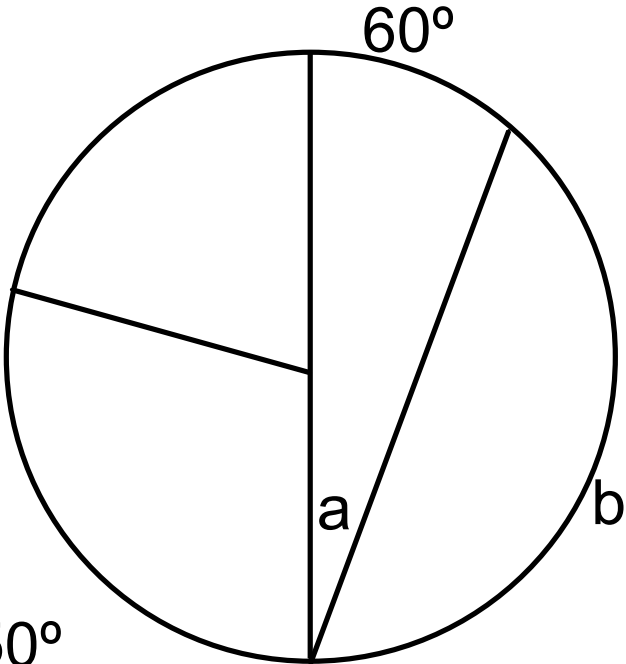


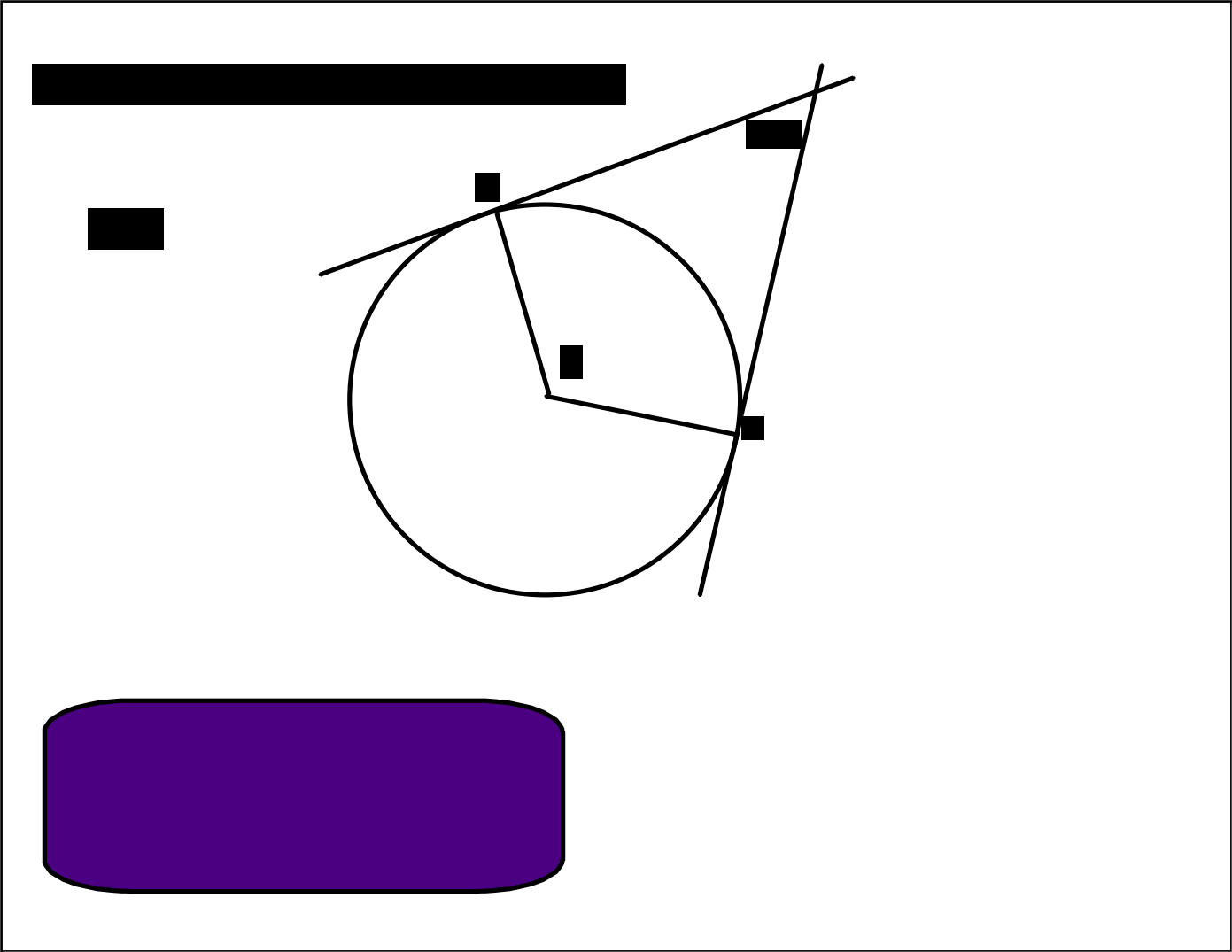
$a = 30^\circ$

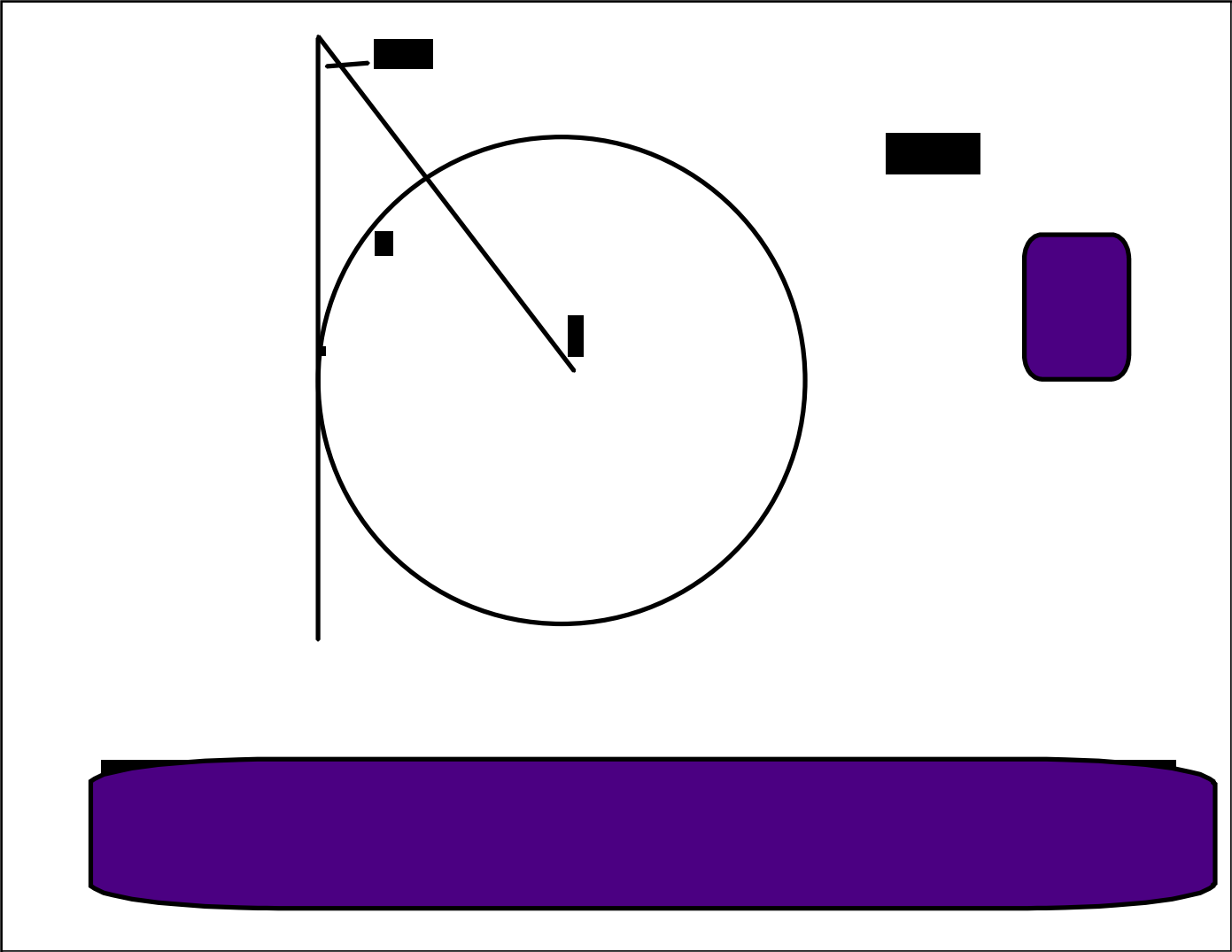
$b = 120^\circ$

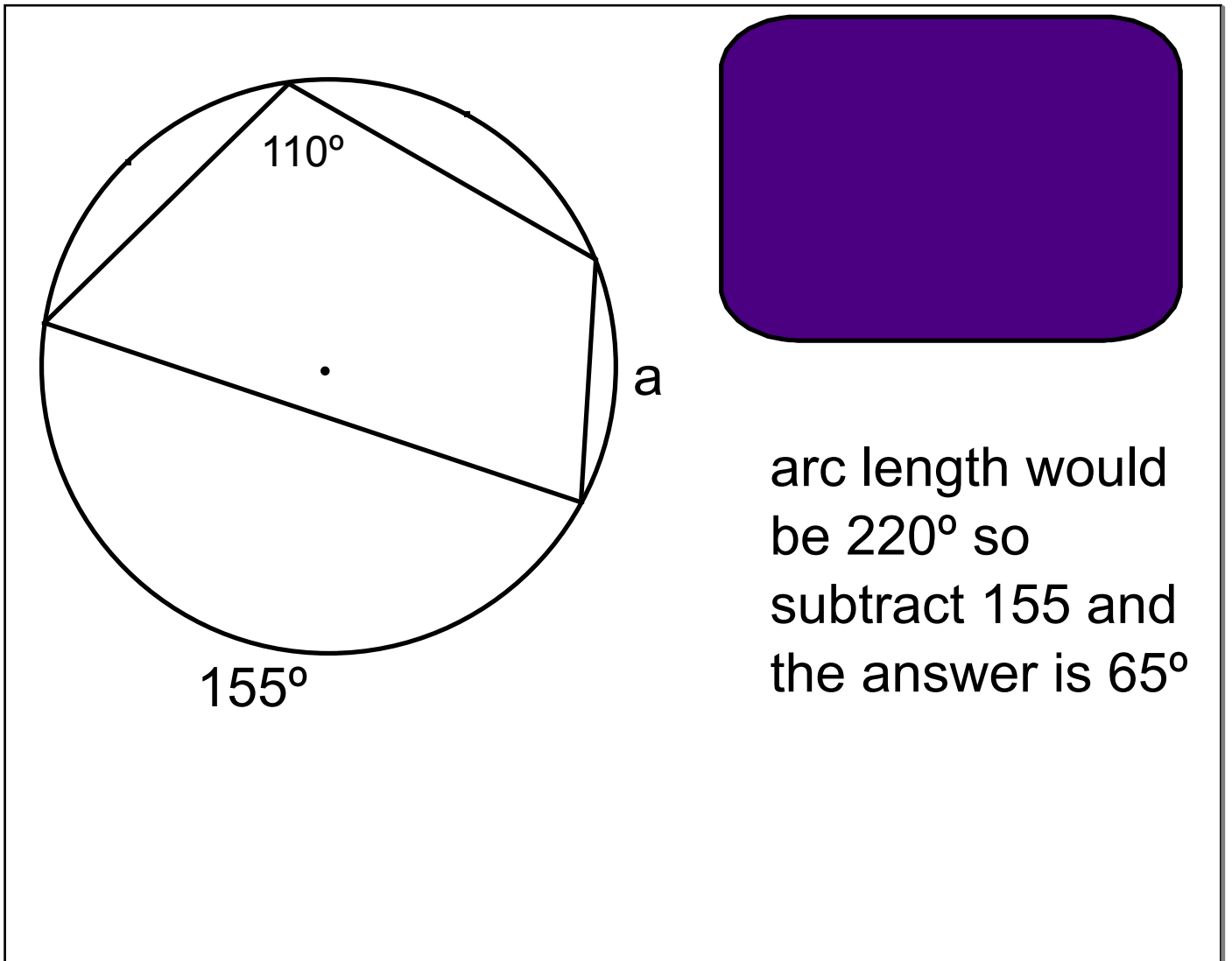
Sum of a & b



$30 + 120 = 150^\circ$





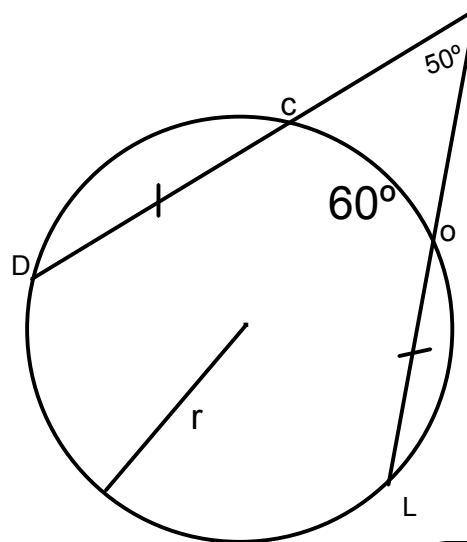


110°

155°

a

arc length would be 220° so subtract 155 and the answer is 65°



$r = 36$ ft.
The length
of \widehat{CD} is

$$50 = \frac{1}{2}(x - 60)$$

$$100 = x - 60$$

$$160 = x$$

$$m\widehat{CD} = m\widehat{OL} \text{ so}$$

$$m\widehat{CD} + m\widehat{OL} + 60 + 160 = 360$$

$$2m\widehat{CD} + 220 = 360$$

$$2m\widehat{CD} = 140$$

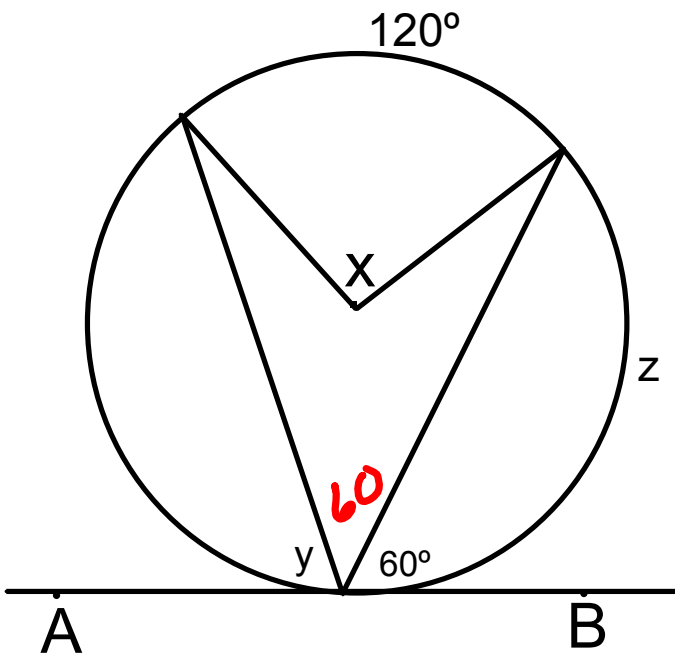
$$m\widehat{CD} = 70$$

$$CD =$$

$$\frac{7}{36}(72\pi)$$

$$= 14\pi$$

$$\frac{70}{360} \cdot \frac{2 \cdot 72\pi}{1} = 14\pi$$



AB is a tangent

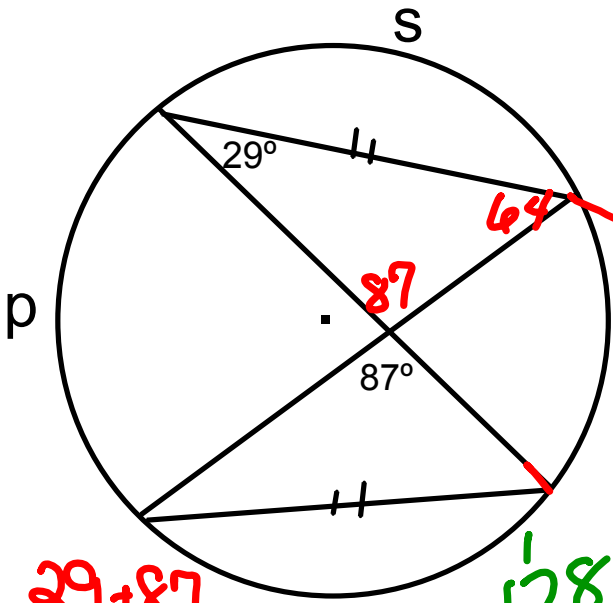
$x = 120^\circ$

$y = 60^\circ$

$z = 120^\circ$

Find the sum of

x, y, z



- p = 128°
- q = 87°
- r = 58°
- s = 87°

$$\begin{array}{r}
 29 + 87 \\
 116 \\
 180 - 116 \\
 \hline
 64
 \end{array}$$

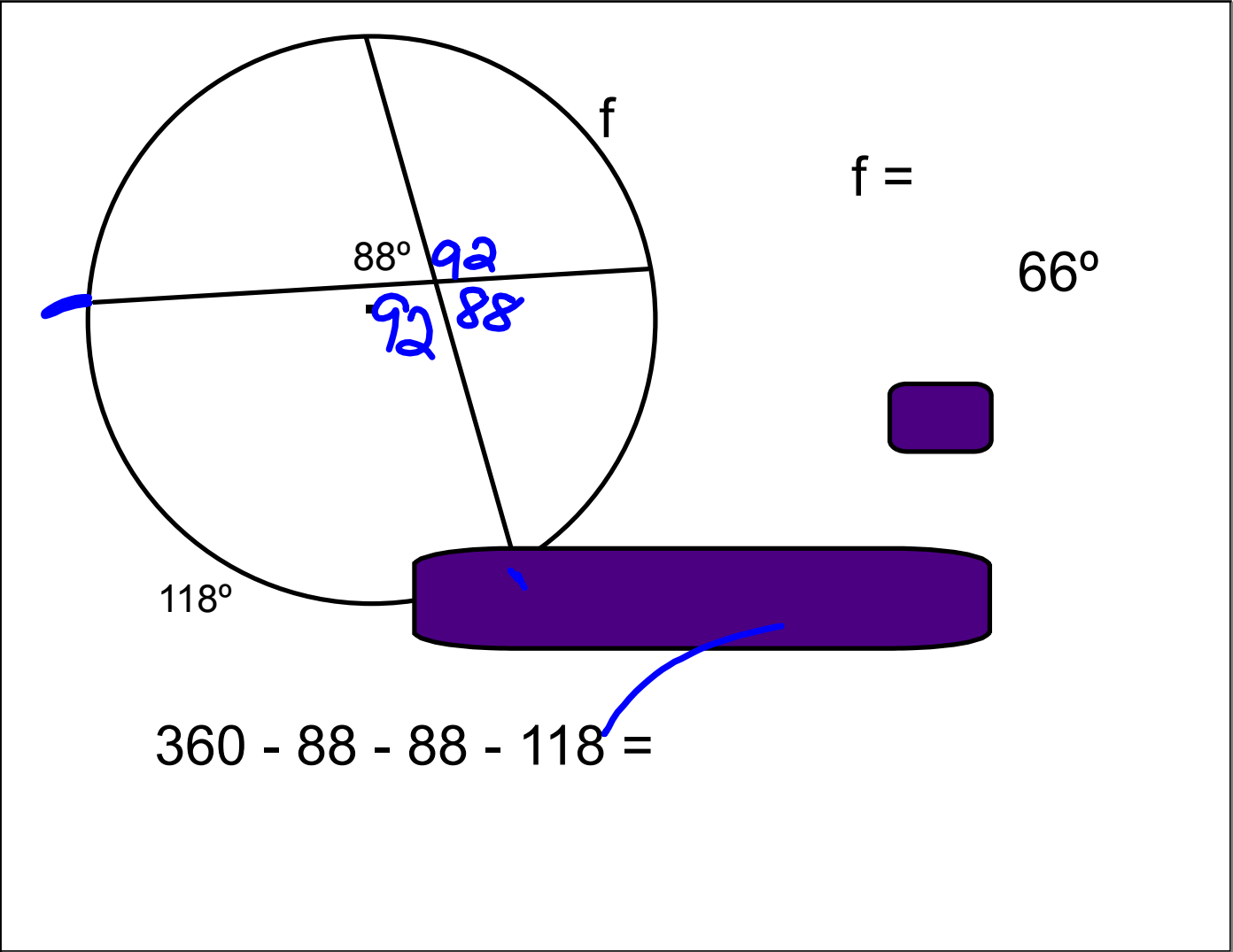
$$\begin{array}{r}
 128 \\
 58 \\
 \hline
 186
 \end{array}$$

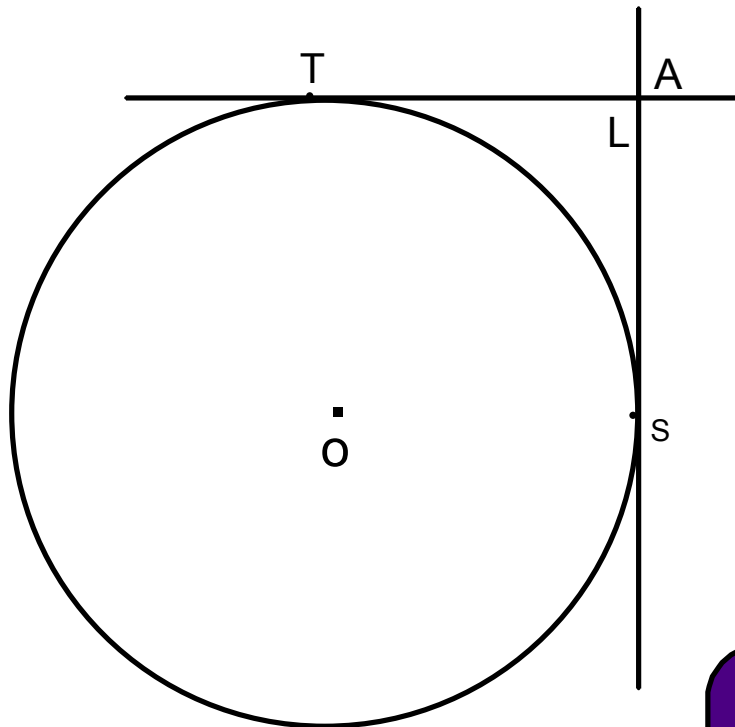
$$\begin{array}{r}
 360 \\
 186 \\
 \hline
 174
 \end{array}$$

find the sum of p, q, and r



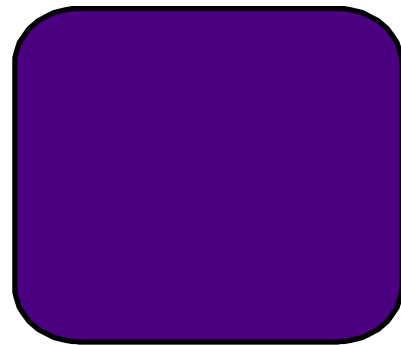
Vertical Angles
Triangle sum

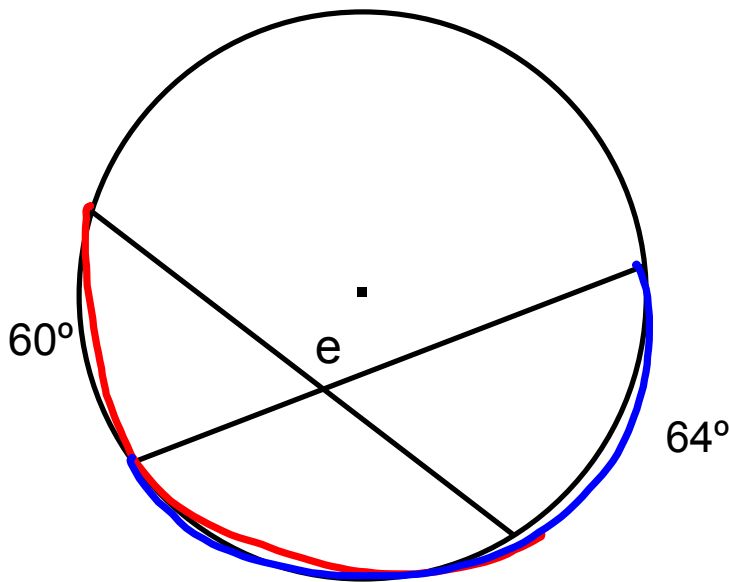
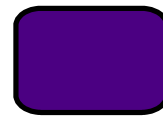




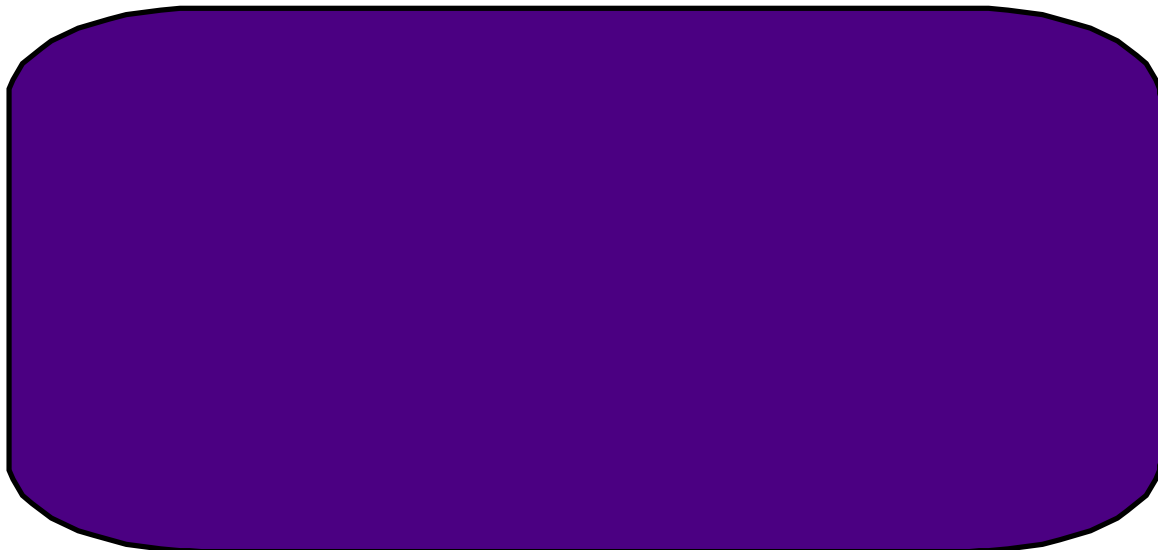
AT and AS are tangents. AT = 12cm. What is the circumference of circle O?

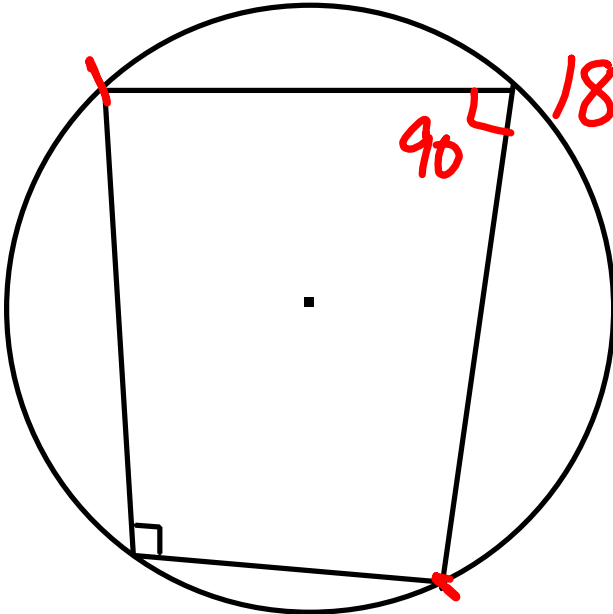
$$\begin{aligned}C &= 2\pi r \\ &= 2(12)\pi \\ &= 24\pi\end{aligned}$$



 $e =$ 118° 

The measure of the intercepted angle of the 64 degree arc is half the sum of the two intercepted arcs, or $64 + 60$ divided by 2. e and the 62 degree angle are supplementary, so $180 - 62$ is the measure of e .





89°

90°

180

d

$d =$

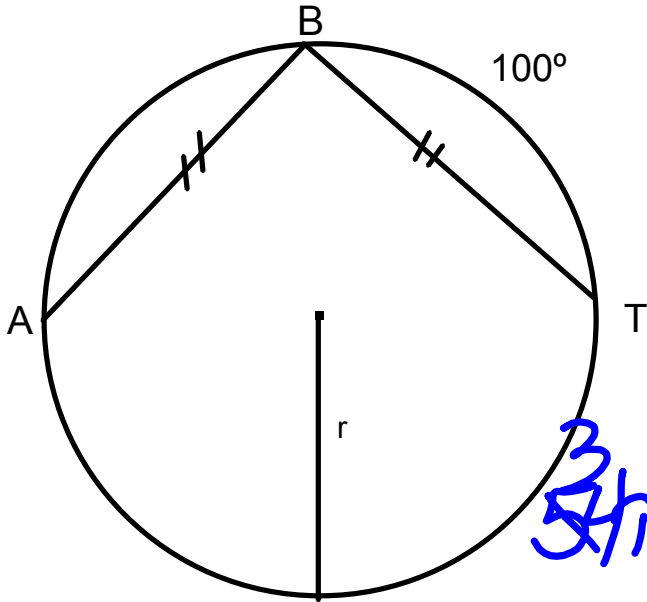
91°

$360 - 180$
 $180 - 89$
 $d = 91$

the angle of 90° gives an arc of 180° ,

$180 + 89 = 269$

$360 - 269 = 91^\circ$



$r = 27$ cm.
The length of \widehat{AB} is

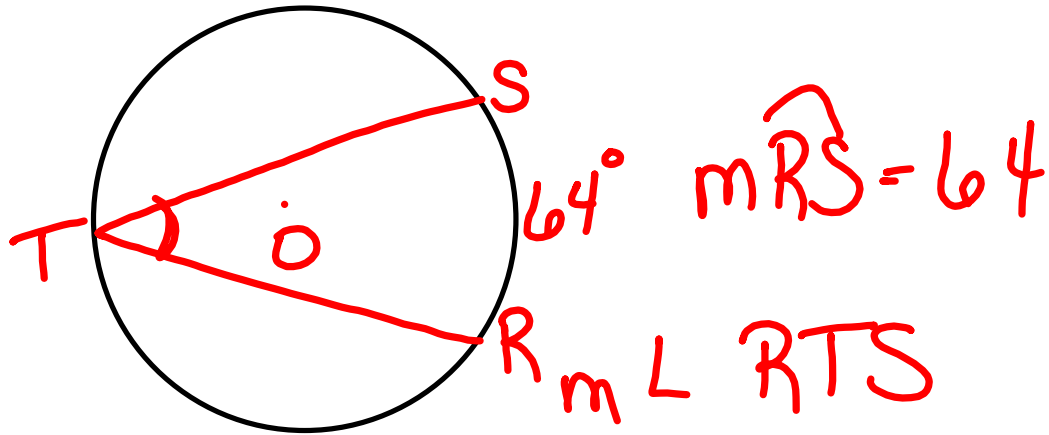
$3 \frac{5}{8} \pi$

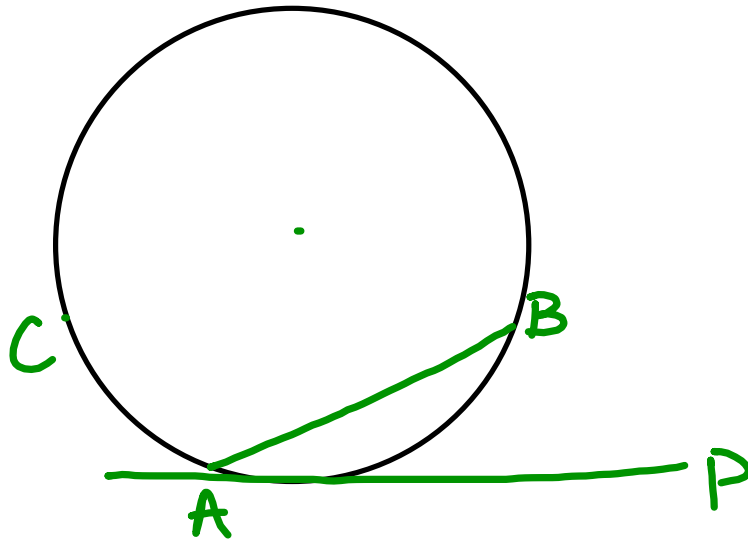
$100 \div 360$

$2\pi 27$



15π





\overline{PA} is tangent
 \overline{AB} is chord

$$m\widehat{ACB} = 30^\circ$$

$\angle BAP$