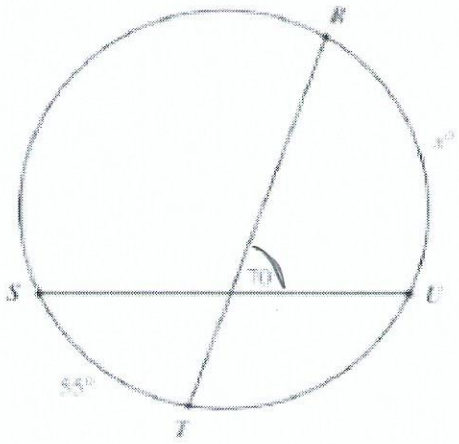
8. Points R, S, T, and U lie on the circle. The measure of $\overset{\frown}{RU}$ is represented by x.



Interior angle so

$m\angle = \frac{\overset{\frown}{BArc} + \overset{\frown}{LArc}}{2}$

Plug in #'s

$70 = \frac{x+55}{2}$

Solve

$2 \cdot 70 = \frac{x+55}{2} \cdot 2$

$140 = x + 55$

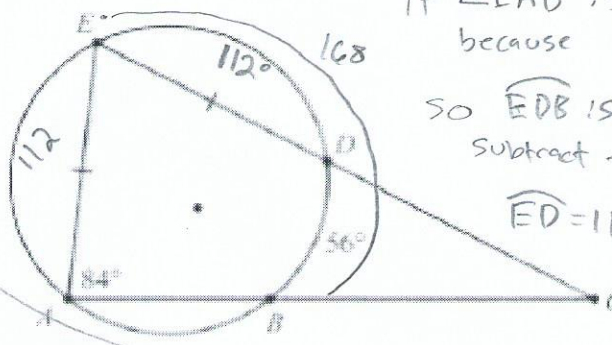
$-55 \quad -55$

$85 = x$

What is the value of x?

A. 70
B. 85
C. 110
D. 140

9. Points A, B, D and E lie on the circle. Point C is outside the circle.



$\angle ACE$ is an external angle so

$m\angle = \frac{\overset{\frown}{BArc} - \overset{\frown}{LArc}}{2}$

$m\angle = \frac{112-56}{2}$

$m\angle = \frac{56}{2}$

$m\angle = 28°$

if $\angle EAB$ is 84 then $\overset{\frown}{EB} = 168°$ because $84 = \frac{marc}{2} \rightarrow 2 \cdot 84 = marc$

so $\overset{\frown}{EDB}$ is 168° and $\overset{\frown}{DB} = 56°$ $168 = marc$

subtract to get $\overset{\frown}{ED} \rightarrow 168 - 56 = 112$

$\overset{\frown}{ED} = 112°$

because $\overline{ED} = \overline{EA}$ then $\overset{\frown}{ED} = \overset{\frown}{EA}$ so $\overset{\frown}{EA} = 112°$

- $\overline{AE} \cong \overline{DE}$
- $m\overset{\frown}{BD} = 56°$
- $m\angle EAC = 84°$

What is the measure of $\angle ACE$?

A. 28°
B. 42°
C. 56°
D. 84°