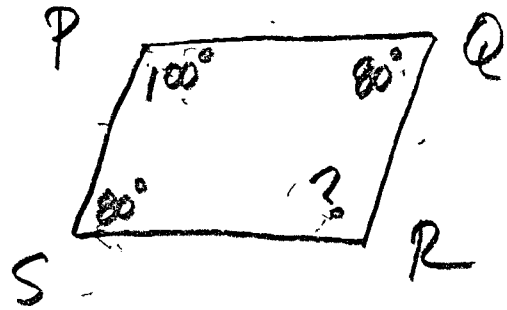
# Geometry Tues. 2-26-13 Class Notes

(51)




$m\angle R = 100°$

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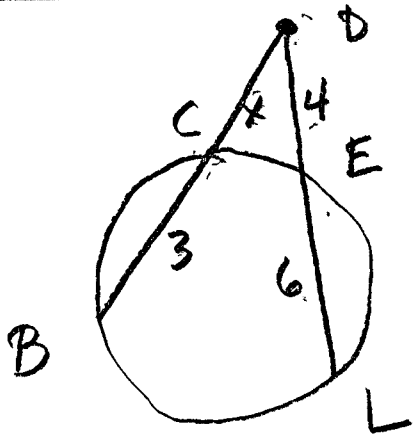



Find CD

$(3+x)x = (6+4)4$

$3x + x^2 = 40$

$1x^2 + 3x - 40 = 0$

$a = 1$

Sum = 3

Prod = $-40$

$-5, +8$

$(x-5)(x+8) = 0$ $\therefore x = \{5, -8\}$

$CD = x = 5$

QF ⇒ QUAD. FORMULA

$$x^2 + 3x - 40 = 0$$

STD. FORM.

$$ax^2 + bx + c = 0$$

$a = 1$

$b = 3$

$c = -40$

$b^2 - 4ac$

$(3)^2 - 4(1)(-40)$

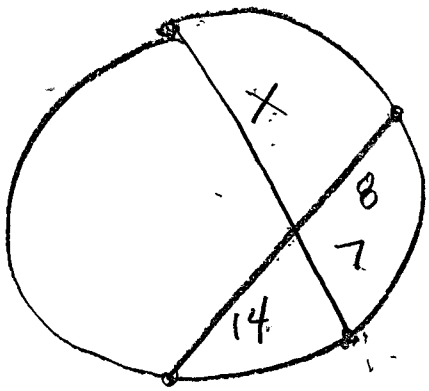
$9 + 160 = 169 = d$

$$x = \frac{-b \pm \sqrt{d}}{2a} = \frac{-3 \pm 13}{2}$$

$$x = \left\{ \frac{-3+13}{2}, \frac{-3-13}{2} \right\}$$

$$x = \{5, -8\}$$

(82) $X = ?$




$$\frac{7X}{7} = \frac{8 \cdot 14}{7}$$

$$X = 16$$

Ex $\frac{8 \cdot 14}{7}$

$\frac{8}{1} \cdot \frac{14}{7}$

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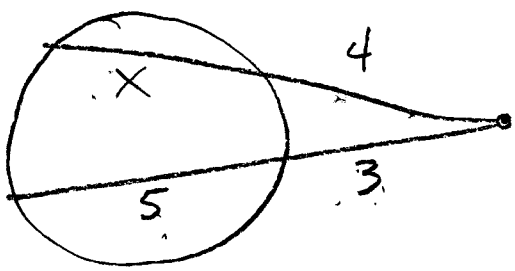
FIND X




$(4+x)4 = (5+3)3$

$= 24$

$16 + 4x$

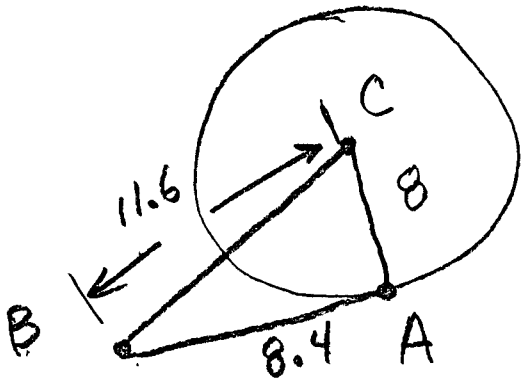
$-16$ $-16$

$\frac{4x}{4} = \frac{8}{4}$

$X = 2$ ✓

(80)

TANGENT = ?

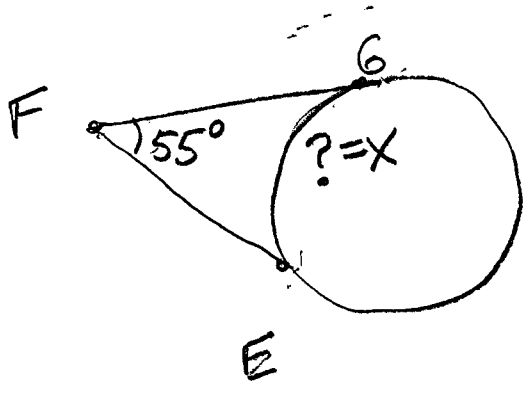



$11.6^2 \stackrel{?}{=} 8.4^2 + 8^2$

| | | |
|---|---|---|
| 11.6 | = | 8.4 |
| 11.6 | | 8.4 |
| 696 | | 336 |
| 116 | | 672 |
| 116 | | ↓↓↓↓ |
| 134.56 | = | 70.56 + 64 |
| | | 64.00 |
| | | 134.56 |

YES

(68)




$$\begin{array}{r} {}^{5}{}^{1} \\ 360 \\ -125 \\ \hline 235 \end{array}$$
Big Arc

Big Arc $= (360 - X)$

Little Arc $= X$

$\therefore \quad 55 = \dfrac{(360 - X) - X}{2}$

$55 = \dfrac{360 - 2X}{2}$

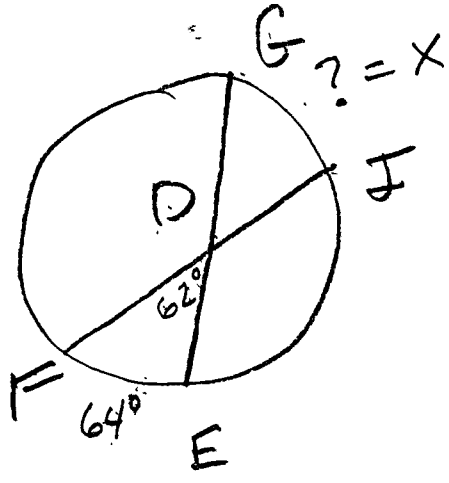
$55 = 180 - X$

$-55 \quad -55$

$0 = 125 - X$

$\boxed{X = 125^\circ}$

(70)




$$\frac{64 + x}{2} = 62$$

$$64 + x = 124$$

$-64 \qquad -64$

$$x = 60^\circ$$