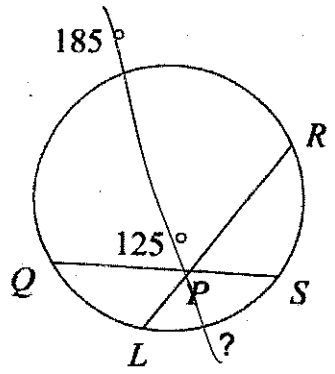
Unit 9a Quiz 2 Review

Key

Vertex inside the circle ($\frac{arc + arc}{2} = angle$)



$\frac{185 + x}{2} = 125$

$185 + x = 250$

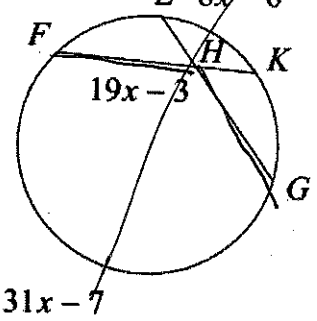
$-185 \quad -185$

$x = 65°$

Solve for x. Then find m<FHG:
Can you find the m<EHK?

$m\angle FHG = 19(7) - 3 = 130°$

$m\angle EHK = 130°$ (vertical angles)



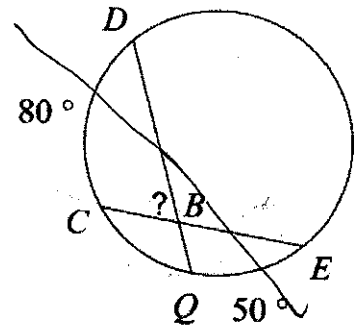
$\frac{8x - 6 + 31x - 7}{2} = 19x - 3$

$\frac{39x - 13}{2} = \frac{1}{2}(19x - 3)$

$39x - 13 = 38x - 6$

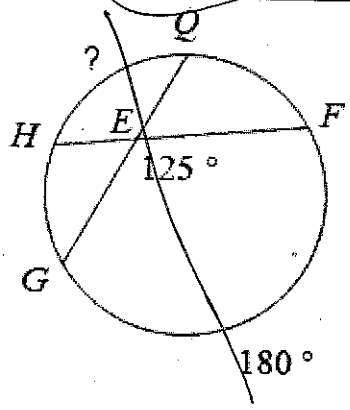
$-38x + 13 \quad -38x + 13$

$x = 7$



$\frac{80 + 50}{2} = x$

$65° = x$

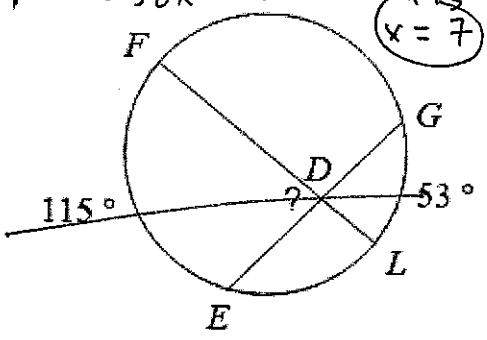


$\frac{180 + x}{2} = 125$

$180 + x = 250$

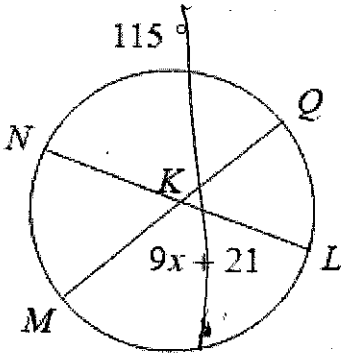
$-180 \quad -180$

$x = 80°$



$\frac{115 + 53}{2} = x$

$84° = x$



$-7 + 12x$

$\frac{-7 + 12x + 115}{2} = 9x + 21$

$\frac{12x + 108}{2} = \frac{2(9x + 21)}{2}$

$12x + 108 = 18x + 42$

$-12x \quad -12x$

$108 = 6x + 42$

$-42 \quad -42$

$\frac{66}{6} = \frac{6x}{6}$

$x = 11$

Vertex Outside ($\frac{large\ arc - small\ arc}{2} = angle$)

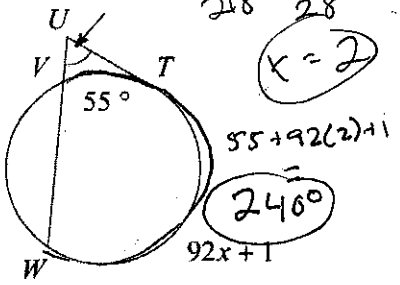
Solve for x then find m$\overline{VTW}$

$28x - 54 = 2$

$+54 \quad +54$

$\frac{28x}{28} = \frac{56}{28}$

$x = 2$



$55 + 92(2) + 1$

$= 240°$

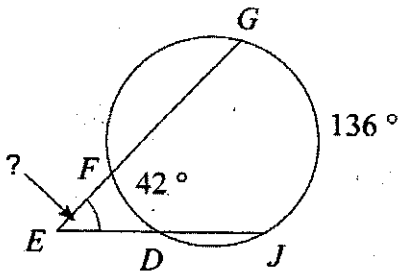
$\frac{92x + 1 - 55}{2} = 32x + 1$

$2 \cdot \frac{92x - 54}{2} = 2(32x + 1)$

$92x - 54 = 64x + 2$

$-64x \quad -64x$

$\frac{28x - 54}{28} = \frac{2}{28}$

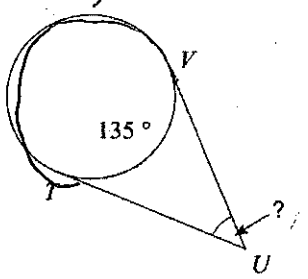


$\frac{136 - 42}{2} = x$

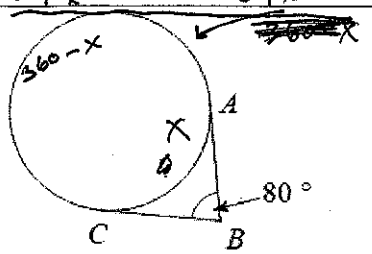
$47° = x$

Hint: use the fact that there are 360 degrees in a circle

$360 - 135 = 225$



$\frac{225 - 135}{2} = x = 45°$



$\frac{360 - x - x}{2} = 80$

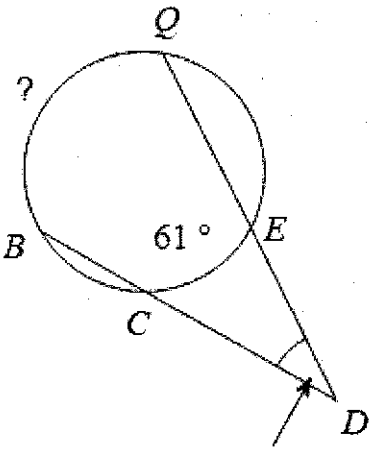
$2 \cdot \frac{360 - 2x}{2} = 80 \cdot 2$

$360 - 2x = 160$

$-360 \quad -360$

$\frac{-2x}{-2} = \frac{-200}{-2}$

$x = 100$

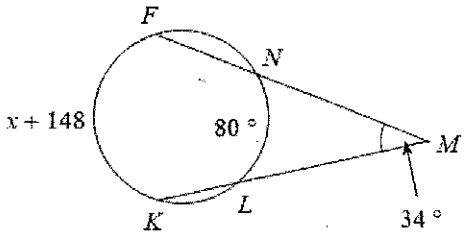


$2 \cdot \frac{x - 61}{2} = 34 \cdot 2°$

$x - 61 = 68$

$+61 \quad +61$

$x = 129°$



$\frac{x + 148 - 80}{2} = 34$

$2 \cdot \frac{x + 68}{2} = 34 \cdot 2$

$x + 168 = 68$

$-168 \quad -168$

$x = -100$