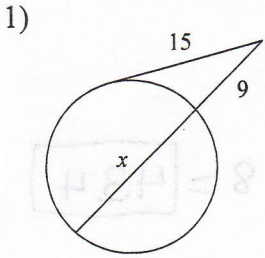
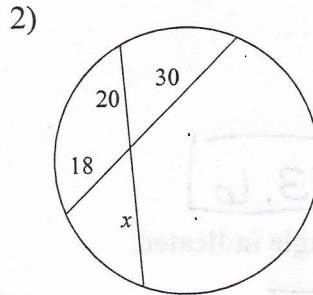


Section 30.6 - Day 2

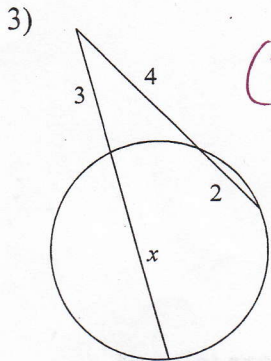
Solve for  $x$ . Assume that lines which appear tangent are tangent.



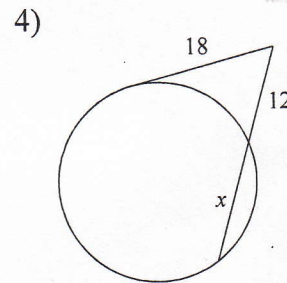
$$\begin{aligned} (x+9)9 &= 15^2 \\ 9x+81 &= 225 \\ 9x &= 144 \\ \boxed{x=16} \end{aligned}$$



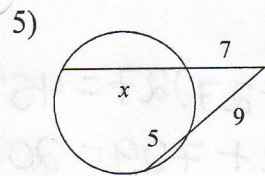
$$\begin{aligned} 20x &= 540 \\ \boxed{x=27} \end{aligned}$$



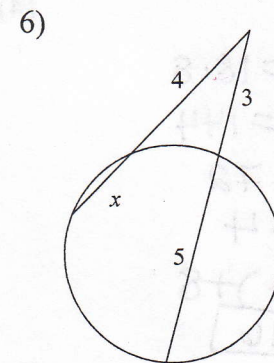
$$\begin{aligned} (3+x)3 &= 6(4) \\ 3x+9 &= 24 \\ 3x &= 15 \\ \boxed{x=5} \end{aligned}$$



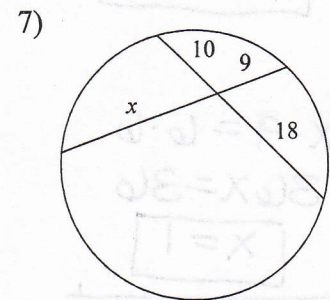
$$\begin{aligned} (x+12)12 &= 18^2 \\ 12x+144 &= 324 \\ 12x &= 180 \\ \boxed{x=15} \end{aligned}$$



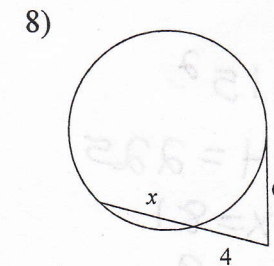
$$\begin{aligned} (x+7)7 &= 14 \cdot 9 \\ 7x+49 &= 126 \\ 7x &= 77 \\ \boxed{x=11} \end{aligned}$$



$$\begin{aligned} (x+4)4 &= 8 \cdot 3 \\ 4x+16 &= 24 \\ 4x &= 8 \\ \boxed{x=2} \end{aligned}$$

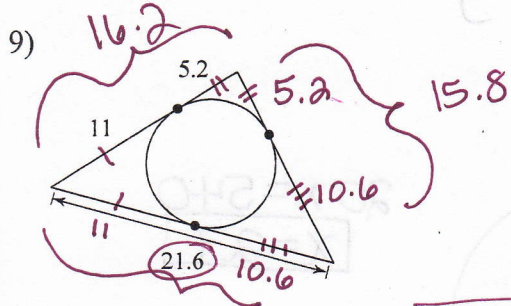


$$\begin{aligned} 9x &= 180 \\ \boxed{x=20} \end{aligned}$$



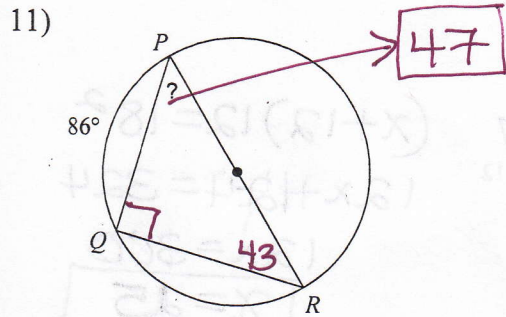
$$\begin{aligned} (x+4)4 &= 6^2 \\ 4x+16 &= 36 \\ 4x &= 20 \\ \boxed{x=5} \end{aligned}$$

Find the perimeter of each polygon. Assume that lines which appear to be tangent are tangent.

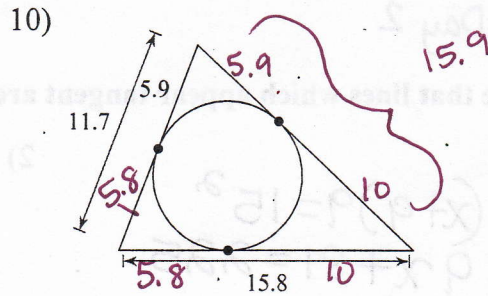


$$16.2 + 21.6 + 15.8 = \boxed{53.6}$$

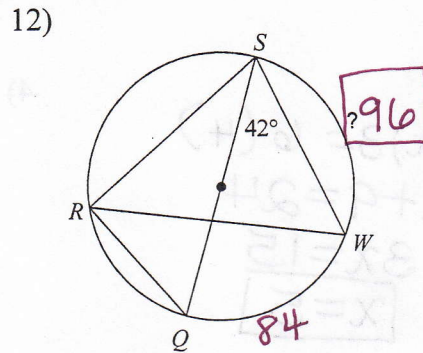
Find the measure of the arc or angle indicated.



$$\boxed{47}$$



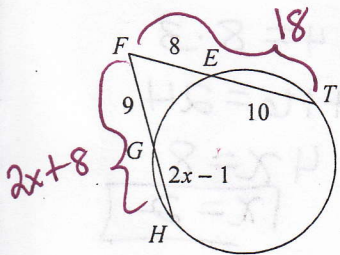
$$15.9 + 11.7 + 15.8 = \boxed{43.4}$$



$$\boxed{96}$$

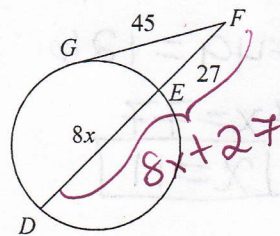
Find the measure of the line segment indicated. Assume that lines which appear tangent are tangent.

13) Find HF



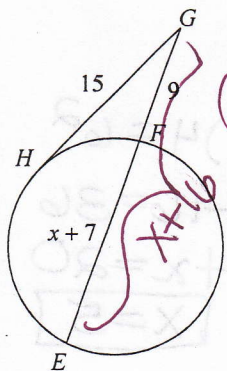
$$\begin{aligned} (2x+8)9 &= 18 \cdot 8 \\ 18x + 72 &= 144 \\ 18x &= 72 \\ x &= 4 \\ HF &= 2(4) + 8 \\ HF &= 16 \end{aligned}$$

14) Find FD



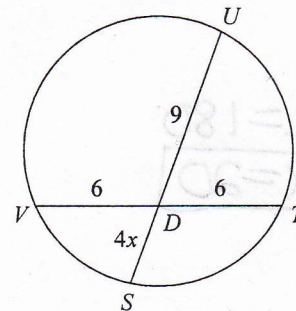
$$\begin{aligned} (8x+27)27 &= 45^2 \\ 216x + 729 &= 2025 \\ 216x &= 1296 \\ x &= 6 \\ FD &= 8(6) + 27 \\ &= 48 + 27 \\ FD &= 75 \end{aligned}$$

15) Find FE



$$\begin{aligned} (x+16)9 &= 15^2 \\ 9x + 144 &= 225 \\ 9x &= 81 \\ x &= 9 \\ FE &= x + 7 \\ FE &= 9 + 7 \\ FE &= 16 \end{aligned}$$

16) Find DS



$$\begin{aligned} 4x \cdot 9 &= 6 \cdot 6 \\ 36x &= 36 \\ x &= 1 \\ DS &= 4(1) = 4 \end{aligned}$$