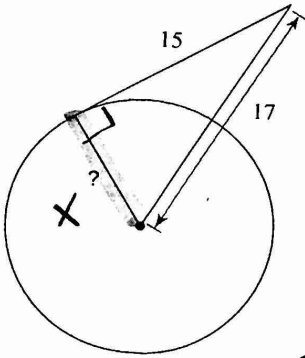


Tangents in Circles Practice

Find the segment length indicated. Assume that lines which appear to be tangent are tangent.

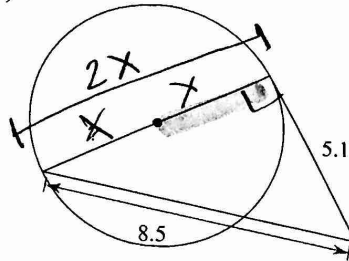
1)



$$17^2 = 15^2 + x^2$$

$$x = 8$$

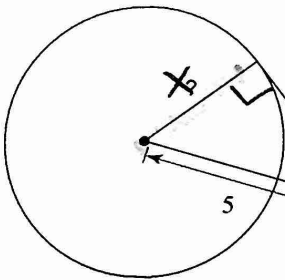
2)



$$8.5^2 = 5.1^2 + 2x^2$$

$$x = 4.8$$

3)



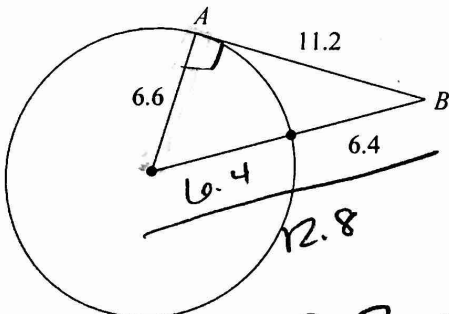
$$5^2 = x^2 + 4^2$$

$$x = 3$$

**Helpful Hint:**  
 Highlight radius or color  
 + tan another  
 right  $\angle$  is  
 always where  
 radius meets  
 tangent

Determine if line AB is tangent to the circle.

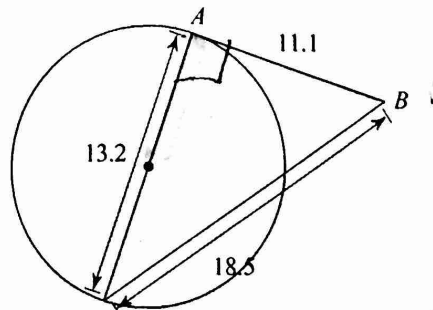
4)



$$11.2^2 + 6.6^2 \neq 12.8^2$$

$$\text{NO}$$

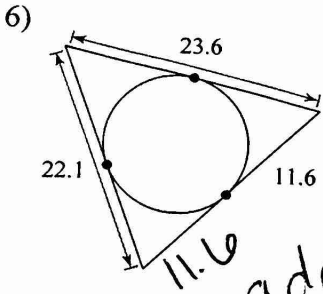
5)



$$18.5^2 = 13.2^2 + 11.1^2$$

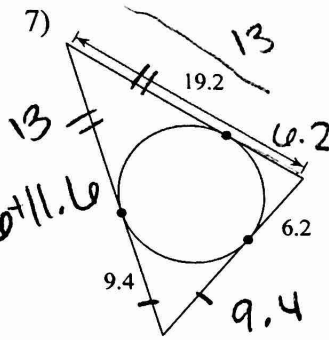
$$\text{NO}$$

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



add them  
 $22.1 + 23.6 + 11.6 + 11.6$

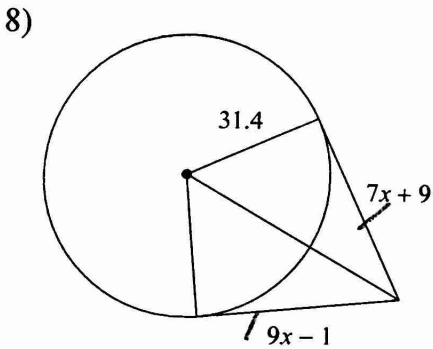
$68.9$



$13 + 9.4 + 9.4 + 6.2 + 19.2$

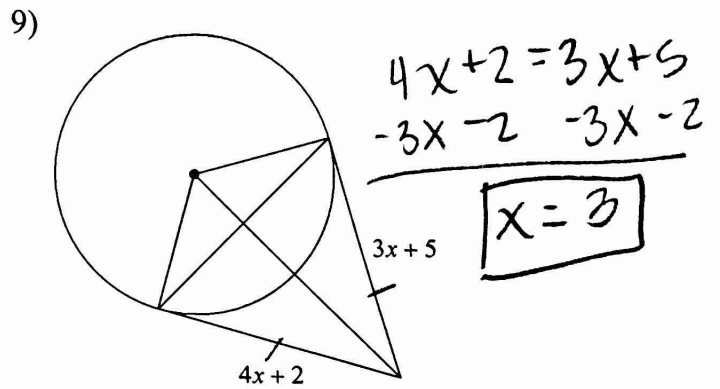
$57.2$

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



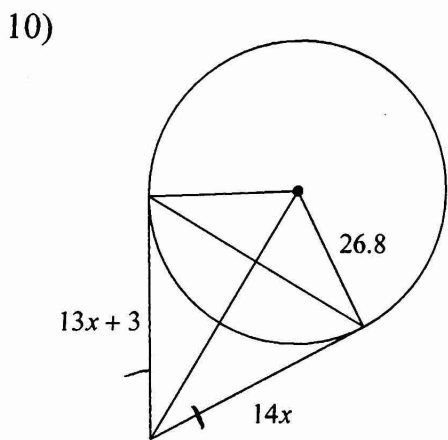
$9x - 1 = 7x + 9$

$2x = 10$       $x = 5$



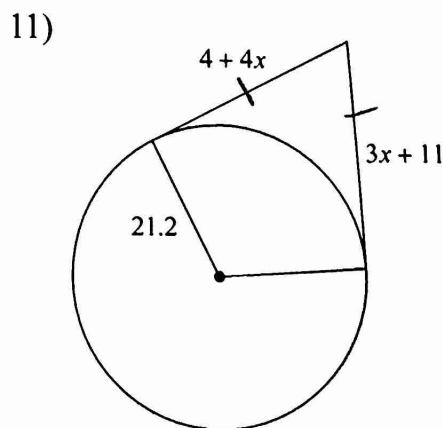
$4x + 2 = 3x + 5$   
 $-3x \quad -2 \quad -3x \quad -2$

$x = 3$



$13x + 3 = 14x$

$x = 3$



$4 + 4x = 3x + 11$   
 $-4 \quad -3x \quad -3x \quad -4$

$x = 7$