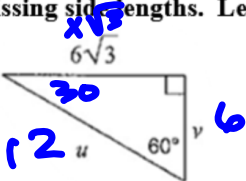
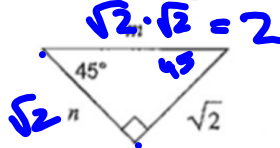


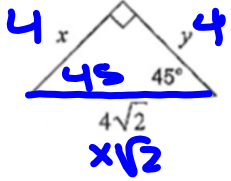
## Grab a Bell Ringer and Hw Tracker

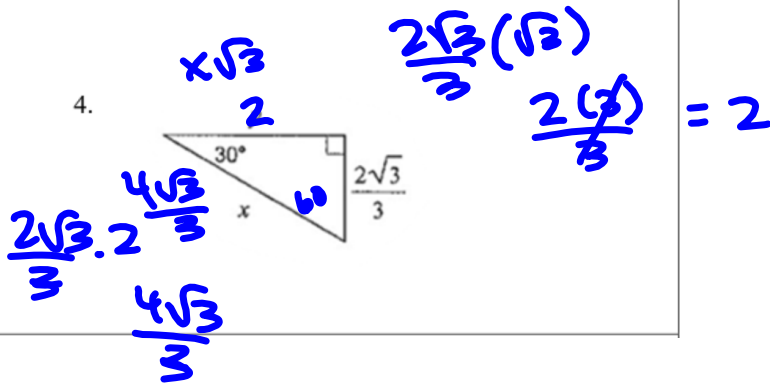
Monday 4/8

Find the missing side lengths. Leave your answers as radicals in simplest form.

1. 

2. 

3. 

4. 

correct 12.8

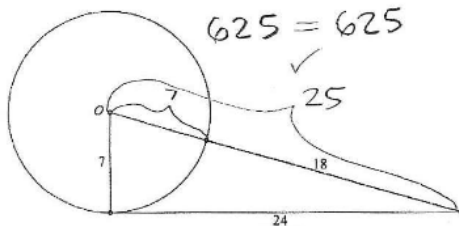
Key

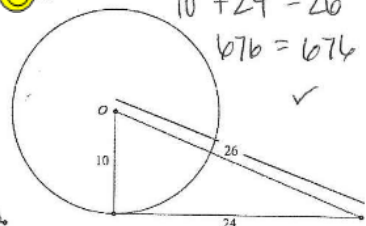
# 12.8 Tangent Lines

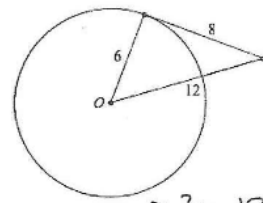
Name \_\_\_\_\_ Hr \_\_\_\_\_

- ☺ A. Tangent lines are Perpendicular to the radius of a circle at the point of tangency.
- B. If a line is perpendicular to a radius at its endpoint then the line is tangent to the circle.
- C. If two tangent segments to a circle share a common endpoint outside the circle, then the two segments are congruent.

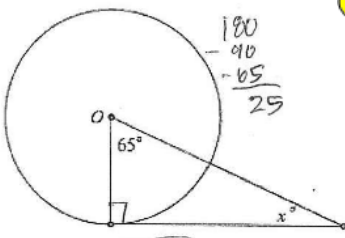
Determine whether each segment is tangent to the given circle: (use pythagorean theorem)

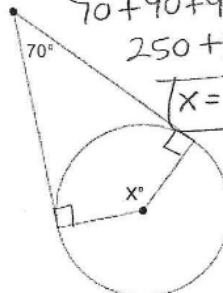
1.  $7^2 + 24^2 = 25^2$   
 $625 = 625$   
  
yes, tangent

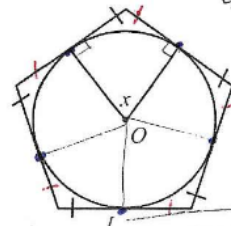
☺ 2.  $10^2 + 24^2 = 26^2$   
 $676 = 676$   
  
yes tangent

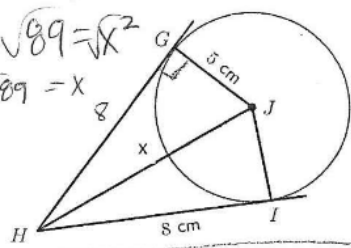
3.  $6^2 + 8^2 = 12^2$   
 $100 \neq 144$   
  
Not tangent

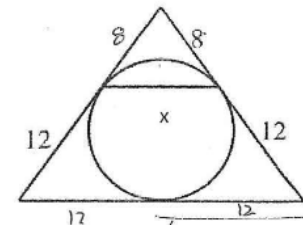
Find the measure of angle x. Given that the line that appears to be tangent, is tangent.

4.  $180 - 90 - 65 = 25$   
  
X = 25

☺ 5.  $70 + 90 + 90 + x = 360$   
 $250 + x = 360$   
 $x = 110$   


$\frac{360}{5} = 72^\circ$   
  
X = 72°

☺ 7.  $5^2 + 8^2 = x^2$   
 $\sqrt{89} = \sqrt{x^2}$   
 $\sqrt{89} = x$   
  
X =  $\sqrt{89}$  or 9.43

8.  $\frac{8}{x} = \frac{20}{24}$   
 $\frac{192}{20} = \frac{20x}{20}$   
  
Z = 9.6

Find the missing length given that the line that appears to be tangent, is tangent.

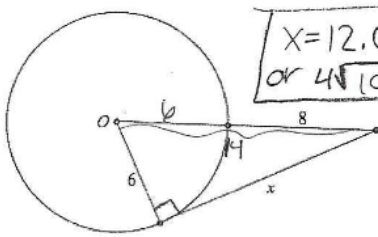
9.

$$6^2 + x^2 = 14^2$$

$$14^2 - 6^2 = x^2$$

$$\sqrt{160} = x$$

$$10 \cdot 16 = 4 \cdot 4 = 4\sqrt{10} \text{ or } 12.65$$



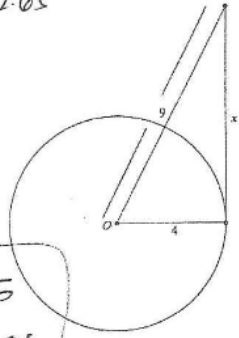
10.  $X = 12.65$   
or  $4\sqrt{10}$

$$x^2 + 4^2 = 9^2$$

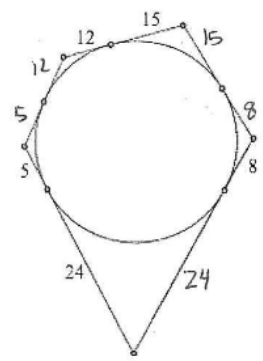
$$9^2 - 4^2 = x^2$$

$$\sqrt{65} = x$$

$X = \sqrt{65}$   
or 8.06

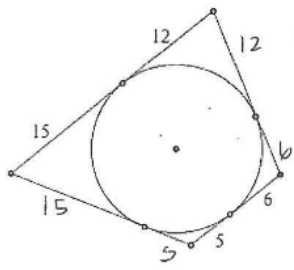


13. Find the perimeter of the pentagon:



128

16. Find the perimeter of the polygon:



76

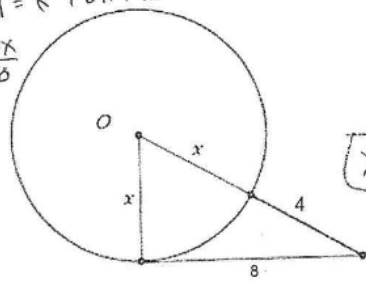
12.

$$x^2 + 8^2 = (x+4)^2$$

$$x^2 + 64 = x^2 + 8x + 16$$

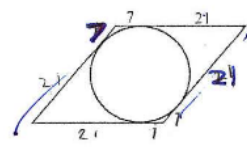
$$\frac{48}{8} = \frac{8x}{8}$$

$$x = 6$$



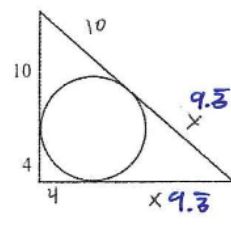
X = 6

14. Find the perimeter of the ~~parallelogram~~ rhombus.



112

15. Find the perimeter of the right triangle:



$X = 9.33$   
Perimeter = 46.66

$$14^2 + (4+x)^2 = (10+x)^2$$

$$196 + 16 + 8x + x^2 = 100 + 20x + x^2$$

$$212 + 8x - 100 - 20x = 0$$

$$112 - 12x = 0$$

$$\frac{112}{12} = \frac{12x}{12}$$

$$9.33 = x$$

## Wk 4 Hw Tracker due!!!

12.5 Segment Lengths

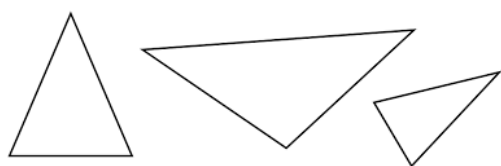
12.6 Interior and Exterior Angles

12.7 Review and Applications

12.8 Tangent Lines

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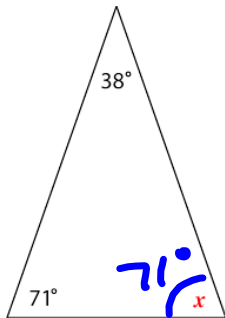
The angles in a triangle sum to 180°



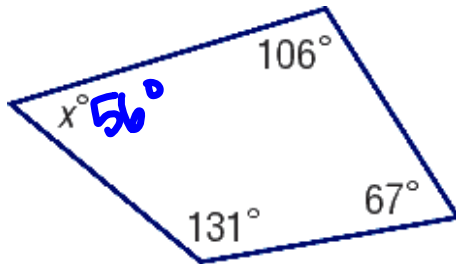
The angles in a quadrilateral sum to 360°



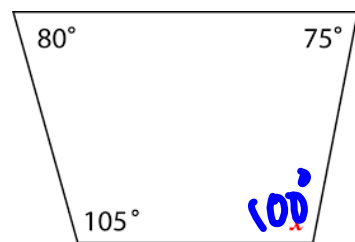
Find the measure of each missing angle



$$\begin{array}{r} 71 \\ 38 \\ \hline 109 \end{array} \quad \begin{array}{r} 180 \\ - 109 \\ \hline 71 \end{array}$$

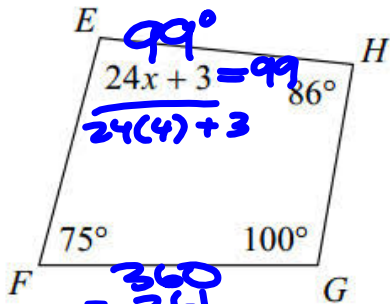


$$\begin{array}{r} 360 \\ - 304 \\ \hline 56 \end{array}$$



$$\begin{array}{r} 360 \\ - 260 \\ \hline 100 \end{array}$$

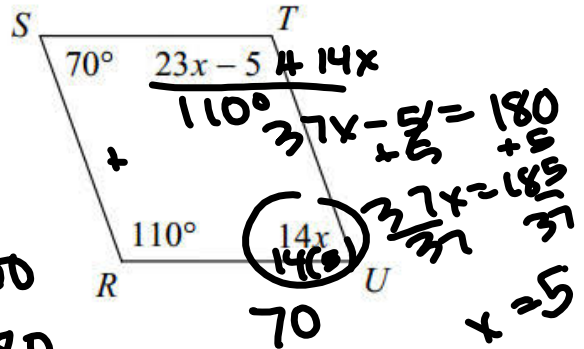
Solve for x, then find the measure of the missing angles



$$\textcircled{264} + 24x + 3 = 360$$

$$\begin{array}{r} 264 + 24x = 360 \\ -264 \quad -264 \end{array}$$

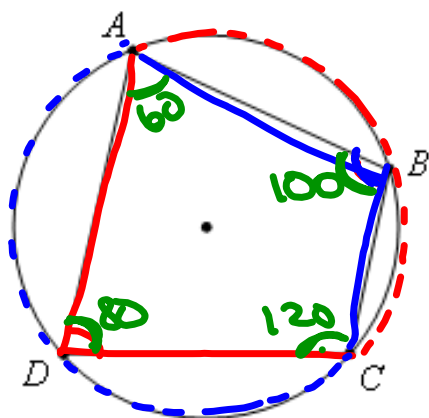
$$\begin{array}{r} 24x = 96 \\ \underline{24} \quad \underline{24} \\ x = 4 \end{array}$$



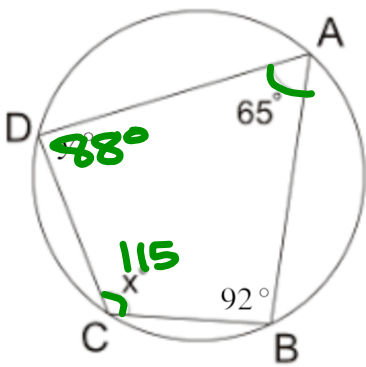
$$\begin{array}{r} 360 \\ -180 \\ \hline \textcircled{180} \end{array}$$



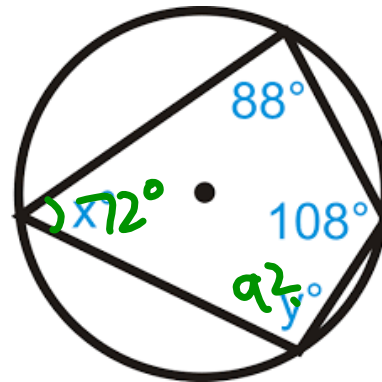
Inscribed Quadrilaterals  
Opposite angles are supplementary  
 $180^\circ$



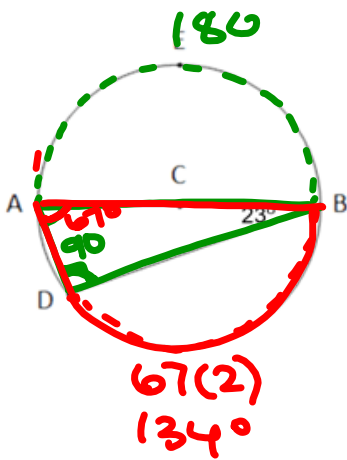
Find the values of x and y



$$x + 65 = 180$$

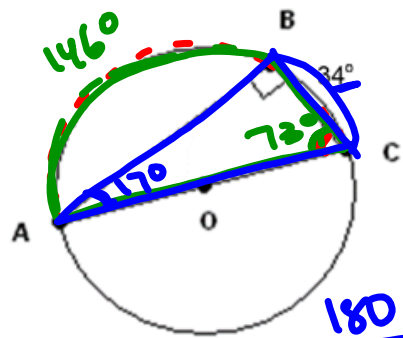


Find  $m\widehat{DB}$



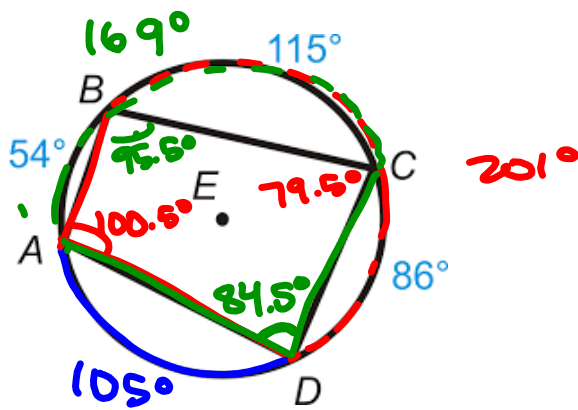
$$\begin{array}{r} -180 \\ 67 \\ \hline 134 \end{array}$$

Find  $m\angle BCA$

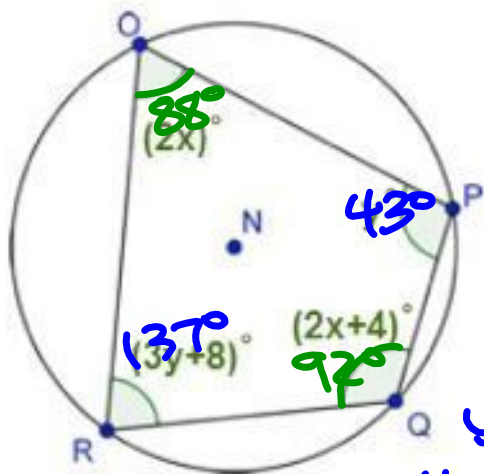


$$\begin{array}{r} -180 \\ 107 \\ \hline 73 \end{array}$$

Find the measure of angles A, B, C and D



Find the measure of angles O, P, Q and R



$$O + Q = 180$$

$$2x + 2x + 4 = 180$$

$$4x + 4 = 180$$

$$4x = 176$$

$$x = 44$$

$$R + P = 180$$

$$y + 3y + 8 = 180$$

$$4y + 8 = 180$$

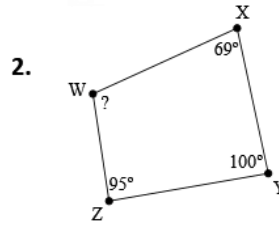
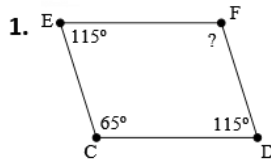
$$4y = 172$$

$$y = 43$$

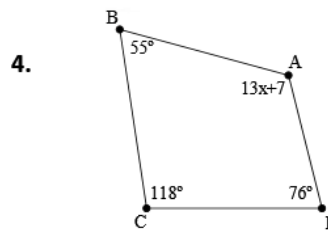
# due Wednesday

Name \_\_\_\_\_ Hour \_\_\_\_\_ 12.9 Inscribed Quadrilaterals and Triangles

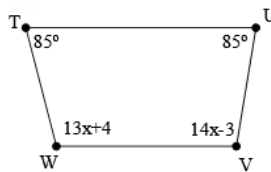
1-2. Find the measure of each indicated angle.



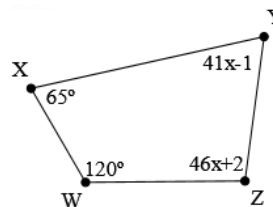
3-4. Solve for x



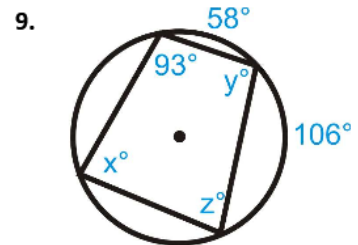
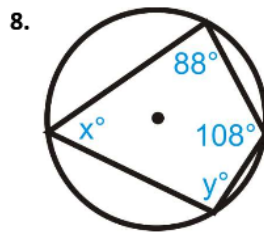
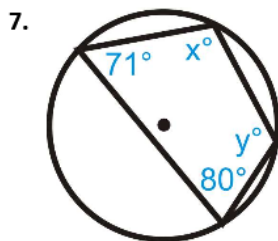
5. Find the  $m\angle V$ .

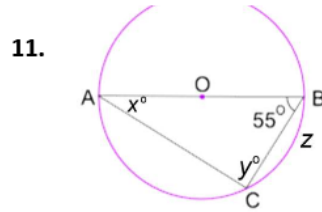
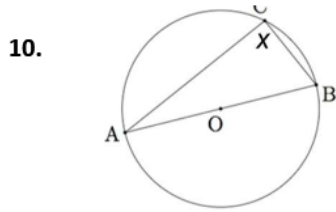


6. Find the  $m\angle Z$ .

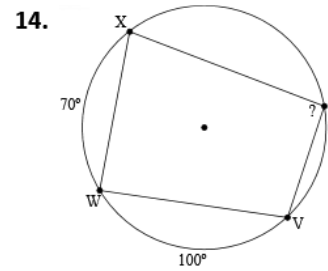
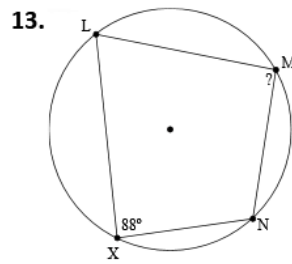
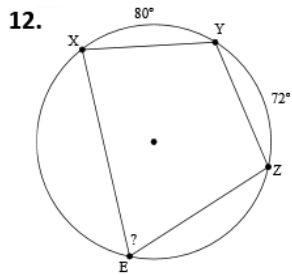


7-11. Find the measure of x, y and z in the <sup>in-</sup>scribed quadrilaterals.

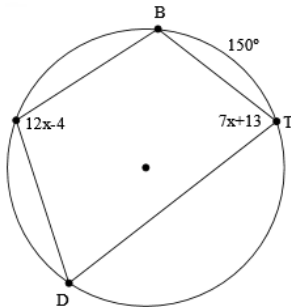




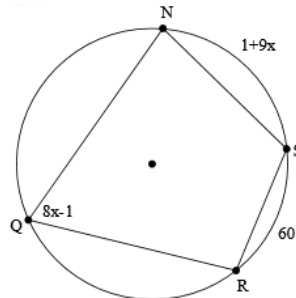
12-14. Find the measure of the arc or angle.



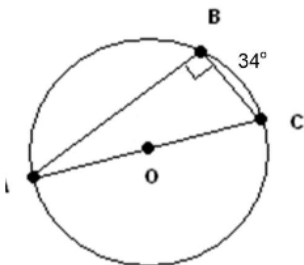
15. Find  $m\widehat{DB}$ .



16. Find  $m\widehat{NS}$ .



17. Find  $m\angle BCA$



18. Find  $x$  and  $y$ .

