

DO NOW On the back of this packet

(1) **Circles: chord and diameter relationship**

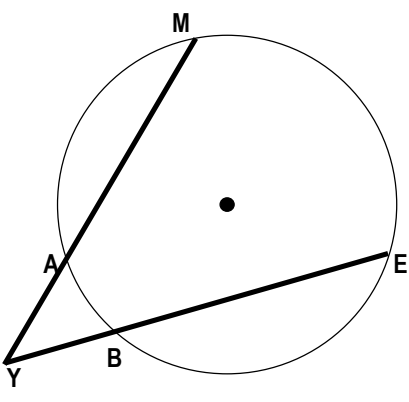
highlighters

Use the website link for 10.9 (see below or use the QR code at right) to investigate the relationship between chord midpoints and diameters. <https://schoolyourself.org/learn/geometry/secant-product>

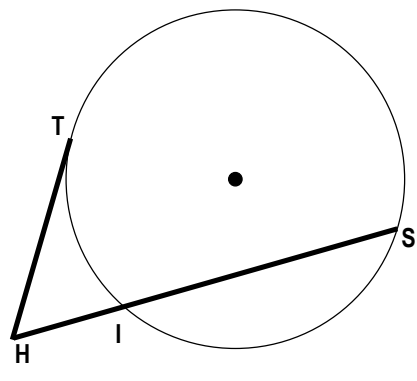


Start by stating whether the diagram illustrates secants, tangents, or one secant and one tangent.

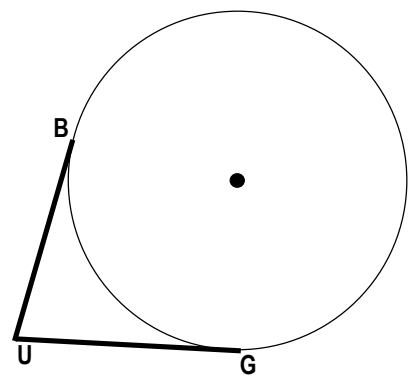
(1st) _____ (2nd) _____ (3rd) _____



REDRAW ↓



REDRAW ↓



Proportion: $\frac{\square}{\square} = \frac{\square}{\square}$

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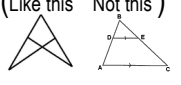
Proportion: $\frac{\square}{\square} = \frac{\square}{\square}$

Equation: _____



Equation: _____

Equation: _____

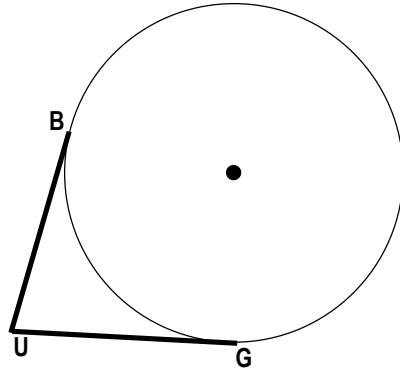
(a) On the 1st diagram, connect points so that you have 2 triangles that partially overlap. (Like this Not this)



- (b) Highlight the two triangles with different colors. Mark any angles that you know are congruent because of the reflexive property OR because they are inscribed angles that intercept the same arc.
- (c) Because you found 2 pairs of congruent angles, the triangles are _____.
- (d) Redraw the triangles separately. Label everything you know.
- (e) Write a proportion with ratios of corresponding sides of the triangles. Be sure to only use segments that were part of the original diagram

(2) (a) Repeat the process of 1a through 1e again with the 2nd diagram. (for step a, Like this  Not this )

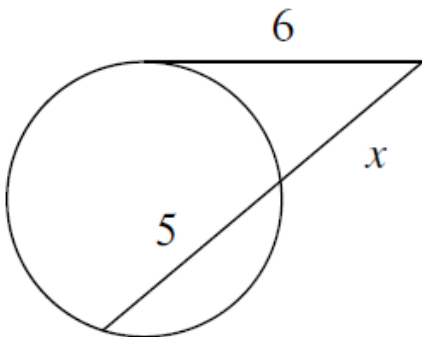
(3) For the third diagram, label the center Y. Draw radii, YB and YG. Draw segment YU. Use the two triangles to prove the relationship between \overline{UB} and \overline{UG} . The diagram is redrawn for you below:



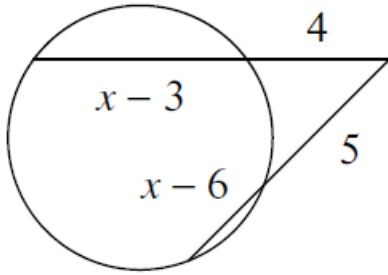
I know that ...	because ...

(4) Find the variable or the indicated segment measure. *** Highlighting segments can be helpful.

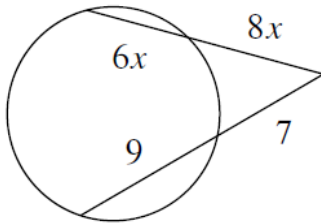
(a)



□ (4) (b)
cont.

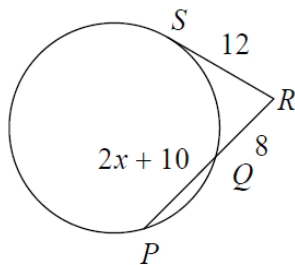


(c)

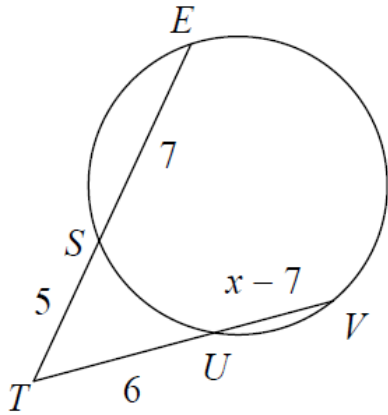


(d)

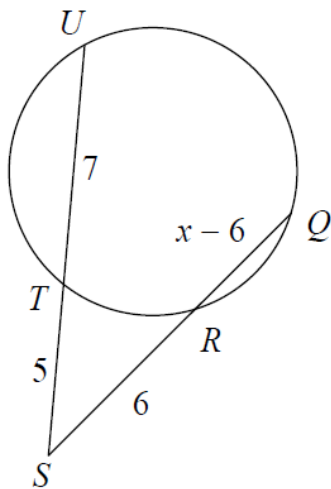
Find RP



- (4) (e) Find the measure of VT
cont.



- (f) Find the measure of QS

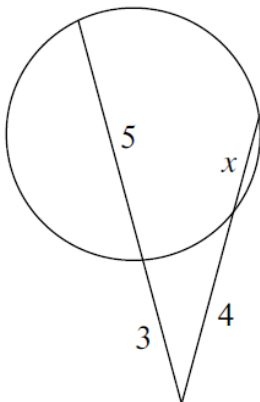


- (5) **Exit Ticket**
calculator

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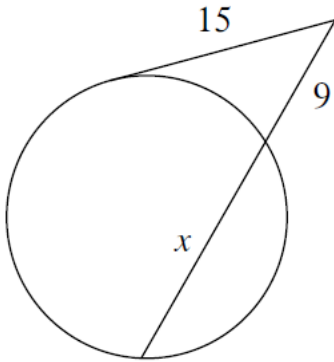
- (6) **Homework**
calculator

- (1) Find the measure of x

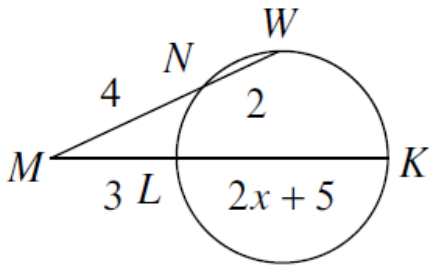


(6) Homework
calculator

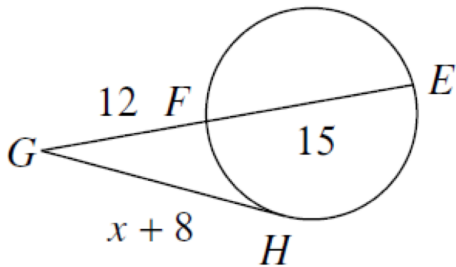
(2) Find the measure of x



(3) Find the measure of KM



(4) Find the measure of HG

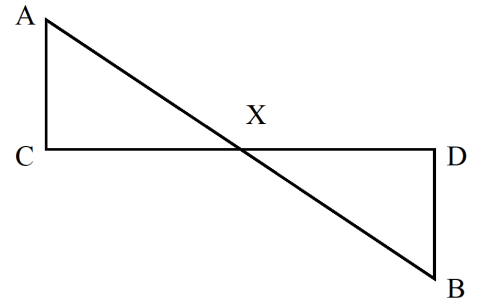


(6) Homework

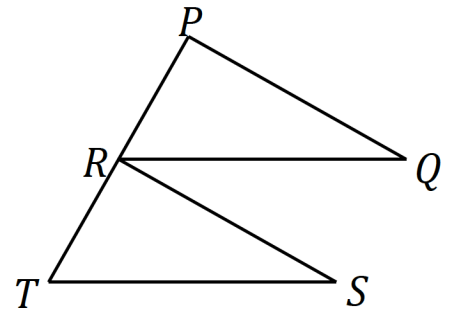
calculator

(4) Write a proof for each part below

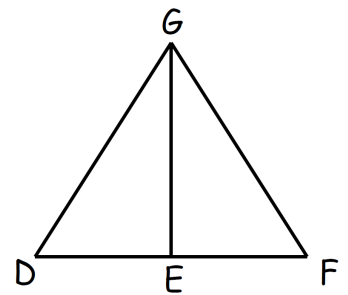
(a) Given: $\triangle ACX \cong \triangle BDX$ Prove: X is the midpoint of \overline{CD}



(b) Prove: If $\triangle PRQ \cong \triangle RTS$, then $\overline{PQ} \parallel \overline{RS}$.



(c) Prove: If $\triangle GDE \cong \triangle GFE$, then $\overline{GE} \perp \overline{DF}$.

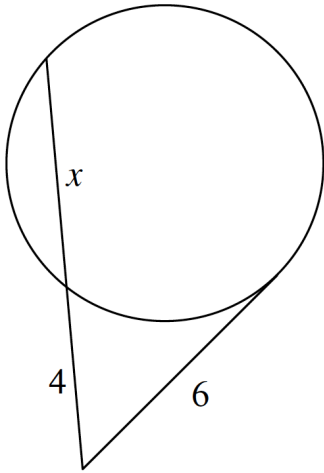


Exit Ticket Name _____ Date _____ Per _____ 10.9R

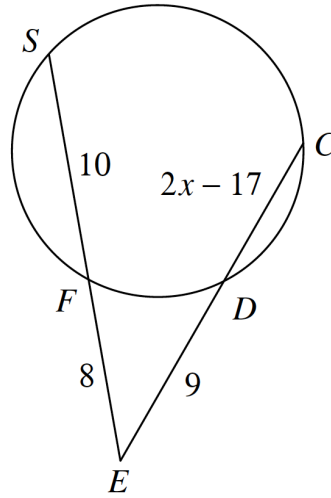
The LO (Learning Outcomes) are written below your name on the front of this packet. Demonstrate your achievement of these outcomes by doing the following:

(1) Find the measure of

(a) x

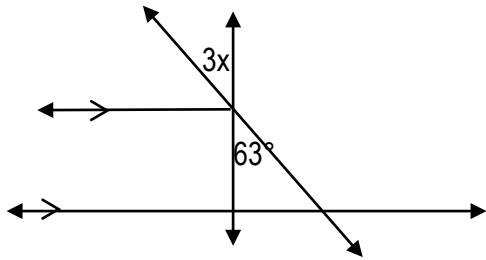


(b) CE

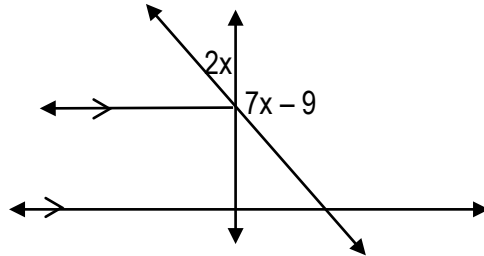


(1) Find the measure of x in each diagram. Name a relationship for every angle measure that you find.

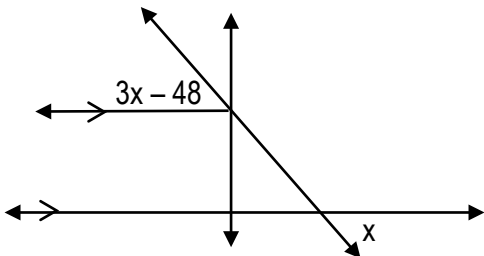
(a)



(b)



(c)



(d)

