

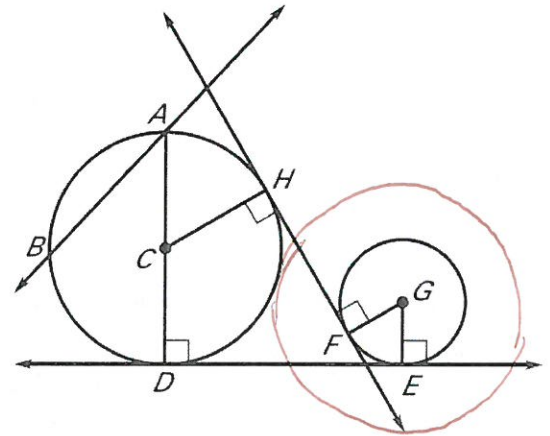
Name: Answer key Per: _____ Date: _____
 Serafino • Geometry

8A: Anatomy of Circles & Tangents

Skills Check / Classwork

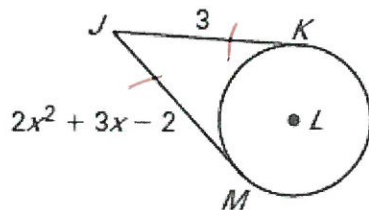
1. Anatomy of a Circle. For each item named below, name as many existing figures as exist in the diagram.

- A. Center: C, G
- B. Chord: AB, AD
- C. Diameter: AD
- D. Radius: CH, FG, EG
- E. Point of tangency: H, D, F, E
- F. Common external tangent: DE
- G. Common internal tangent: HF
- H. Secant: AB
- I. A central angle (3 letters): ∠ACH, ∠FGE, ∠DCH, etc.
- J. An inscribed angle (3 letters): ∠BAD
- K. Minor arc: AB, AH, BH, HD, BD, FE
- L. Major arc: BDH, DHB, ADH, HBD
- M. Semicircle: ABD, AHD



N. In the existing diagram, draw another circle that is concentric to $\odot G$ and tangent to $\odot C$.

2. JK and JM are tangent to $\odot L$. Solve for x:



$$2x^2 + 3x - 2 = 3$$

$$2x^2 + 3x - 5 = 0$$

$$\left(\frac{2x+5}{1}\right)\left(\frac{2x-2}{2}\right)$$

$$(2x+5)(x-1)$$

$$x = -5/2, 1$$

(Checked both work)

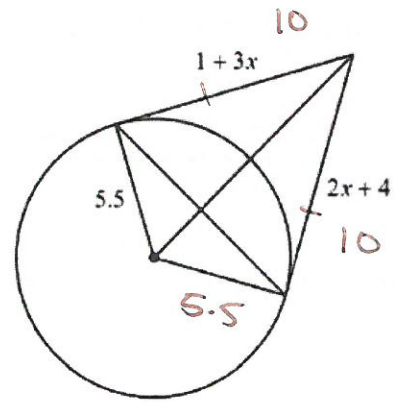
$$\begin{array}{r} -10 \\ 110 \\ \hline -2 \quad 5+ \end{array}$$

3. What is the perimeter of the kite?

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$$1 + 3x = 2x + 4$$

$$x = 3$$



4. Is AB tangent to the circle? Show why or why not.

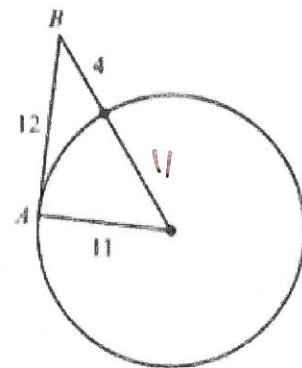
↓ If so, $\angle A$ is right and Pythag works

$$a^2 + b^2 = c^2$$

$$11^2 + 12^2 \stackrel{?}{=} 15^2$$

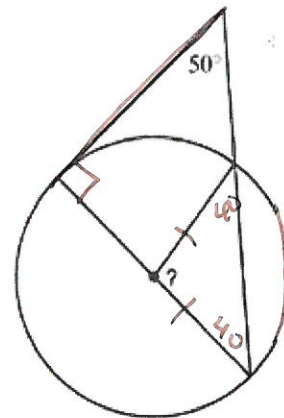
$$121 + 144 \stackrel{?}{=} 225$$

$265 \neq 225$, so no!



5. Assume the segment is tangent to the circle. What is the value of the question mark?

? = 100



6. Why was Ross in the circles video?

He was a tan gent! 😊