

**Algebra 2**  
**Unit: Geometry**  
**Section: Geometry of Circles**

**Flash Cards: Tangents and Secants of Circles**

Directions: Answer the following.

1. Which of the following are NOT always congruent?
  - a. Two tangent lines drawn to a circle from a point outside the circle.
  - b. Two chords drawn in congruent circles which intercept congruent arcs.
  - c. Two secant lines drawn from a point outside a circle.
  - d. Two chords drawn in the same circle through the center of the circle.
  
2. Circle A and Circle B are congruent. Arc HI measures 48 degrees and arc JK measures 48 degrees. Segment HI measures  $7x - 3$  and segment JK measures  $3x + 17$ . Find the value of  $x$ .
  - a. 3
  - b. 5
  - c. 8
  - d. 9
  
3. Point P lies outside circle A. Segment PQ and PR are both tangent to circle A. If segment PQ measures  $3y + 25$  and segment PR measures  $9y + 61$ , find the value of  $y$ .
  - a. 6
  - b. -3
  - c. 3
  - d. -6

Answers:

1. C
2. B
3. D