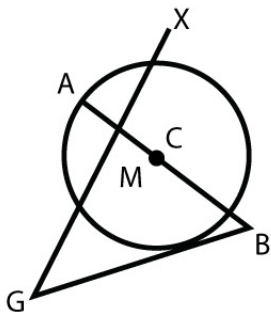


Name : \_\_\_\_\_

Score : \_\_\_\_\_ Date : \_\_\_\_\_

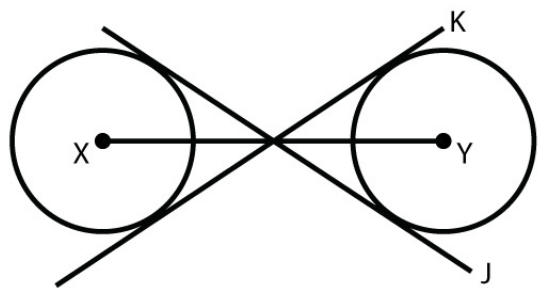
**Properties of Tangents of a Circle**

**1** Which line or segment best describes a tangent



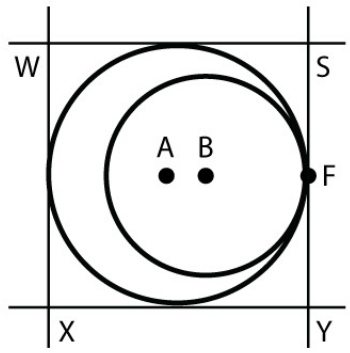
\_\_\_\_\_

**2** In the diagram below, tell whether the common tangents are internal or external



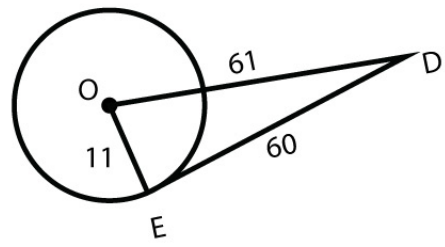
\_\_\_\_\_

**3** In the diagram below, identify all common tangents and the point of tangency



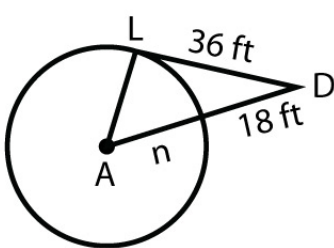
\_\_\_\_\_

**4** Tell whether ED is tangent to the circle with center O



\_\_\_\_\_

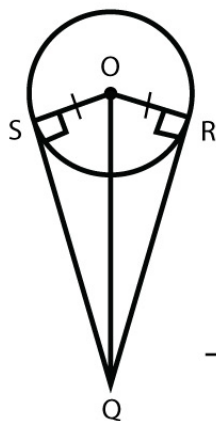
**5** In the diagram below, assume that you are standing at point D, 13 feet from a cold storage at point A. The distance from you to a point of tangency L is 12 feet. What is the radius of the storage house?



\_\_\_\_\_

**6** In the diagram below:  
SQ is tangent at S to the circle  
RQ is tangent at R to the circle

Prove  $SQ \cong RQ$



\_\_\_\_\_

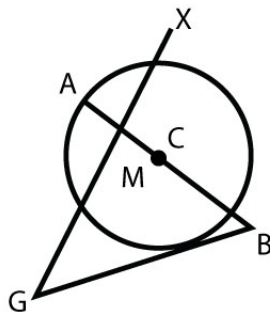
Name : \_\_\_\_\_

Score : \_\_\_\_\_ Date : \_\_\_\_\_

**Properties of Tangents of a Circle**

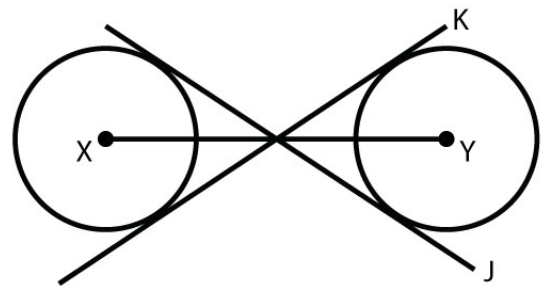
Answers

- 1** Which line or segment best describes a tangent



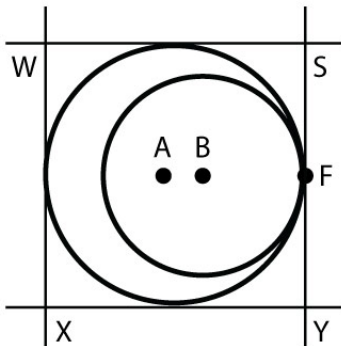
GB

- 2** In the diagram below, tell whether the common tangents are internal or external



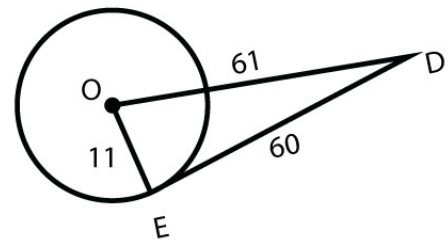
Common internal tangents

- 3** In the diagram below, identify all common tangents and the point of tangency



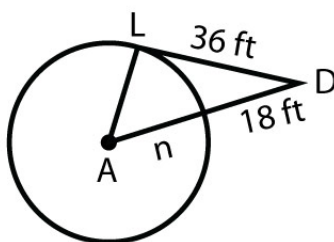
SY    F

- 4** Tell whether ED is tangent to the circle with center O



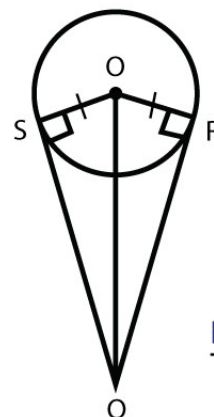
Yes

- 5** In the diagram below, assume that you are standing at point D, 13 feet from a cold storage at point A. The distance from you to a point of tangency L is 12 feet. What is the radius of the storage house?



5 ft

- 6** In the diagram below:  
SQ is tangent at S to the circle  
RQ is tangent at R to the circle



Prove  $SQ \cong RQ$

$OS = OR$  (Given)

$OQ = OQ$  (Common)

$\angle OSQ = \angle ORQ = 90^\circ$

Thus,

$\triangle OSQ = \triangle ORQ$

Hence,  $SQ = RQ$  (Proved)