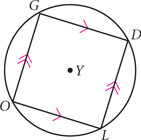
**Geometry HW – Inscribed and Circumscribed Circles and Arc Length (Due 3/17)**

1. Sketch triangle *ABC*. Sketch an inscribed circle in △*ABC*. Sketch a circle that circumscribes △*ABC*. Do you think every triangle can have an inscribed and circumscribed circle?
2. Sketch circle *P*. Sketch a circumscribed rectangle about circle *P*. Sketch a rectangle inscribed in circle *P*. What do you notice? Do you think this true for all rectangles?
3. Determine if the following statement is true or false. If it is true, write a short explanation of your reasoning, including all the important geometric properties.

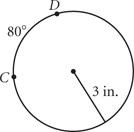
If a parallelogram is inscribed within a circle, then the parallelogram is a rectangle.

**Given:** Circle *Y* with inscribed parallelogram *GOLD*

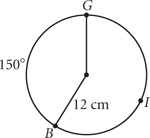
**Show:** *GOLD* is a rectangle

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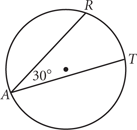
1. Find the length of .

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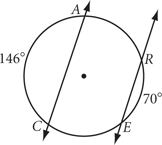
1. Find the length of .

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1. The radius is 18 ft. Find the length of

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1. The length of is 40. Find the radius.

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