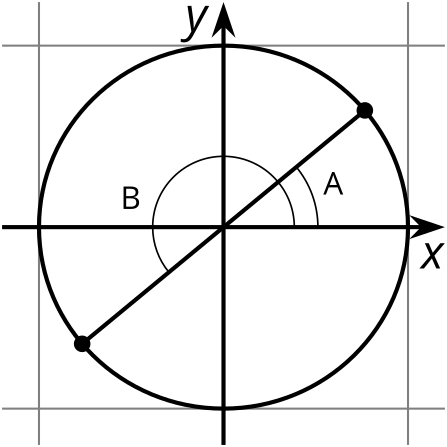
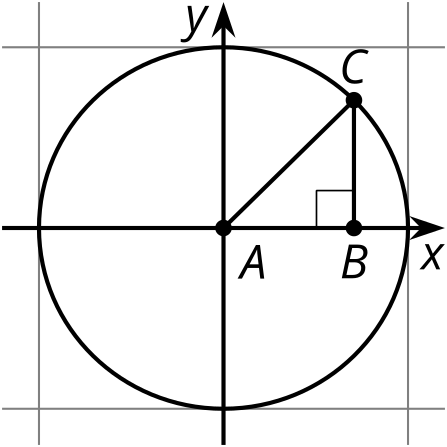
### Lesson 6 Practice Problems

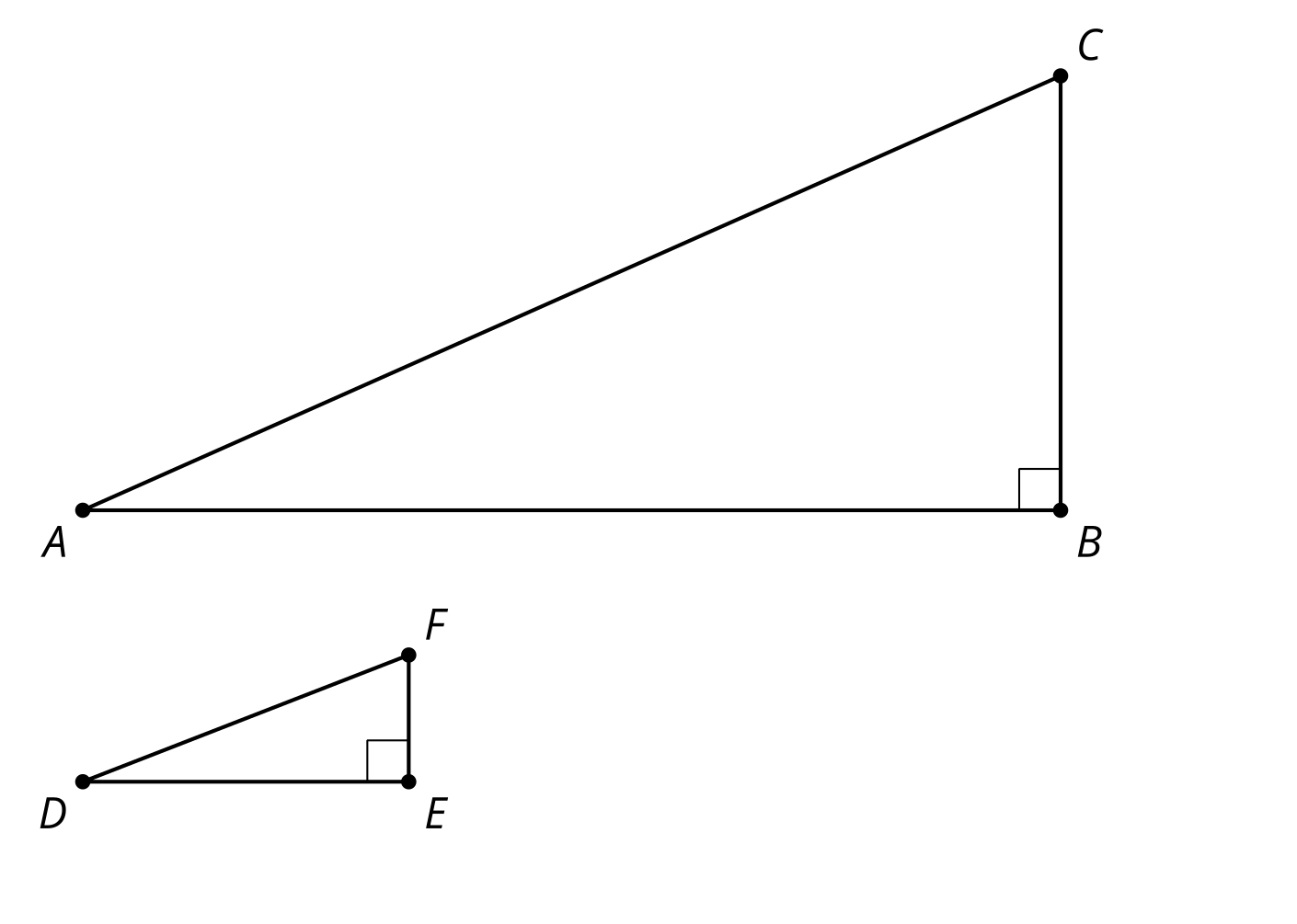
1. The picture shows angles and . Explain why and why .

* 

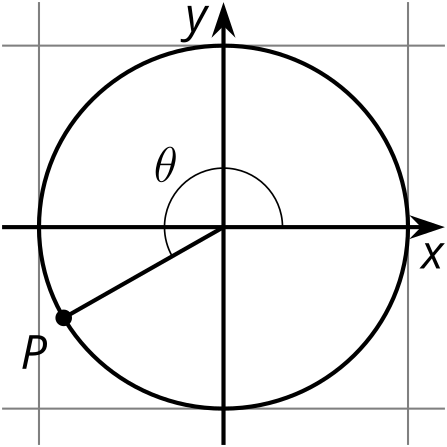
1. Which statements are true? Select **all** that apply.
   1. for an angle in quadrant 2
   2. for an angle in quadrant 2
   3. for an angle in quadrant 2
   4. for an angle in quadrant 3
   5. for an angle in quadrant 3
   6. for an angle in quadrant 3
2. The tangent of an angle satisfies .
   1. Which quadrant could lie in? Explain how you know.
   2. Estimate the possible value(s) of . Explain your reasoning.
3. Evaluate each of the following:
4. The sine of an angle in the second quadrant is . What is ? Explain how you know.
5. Triangle is an isosceles right triangle in the unit circle.

* 
  1. Explain why .
  2. Use the Pythagorean Theorem to explain why .
* (From Unit 6, Lesson 5.)

1. Triangle is similar to triangle . The scale factor going from to is 3.

* 
  1. Explain why the length of segment is 3 times the length of segment and the length of segment is 3 times the length of segment .
  2. Explain why .
* (From Unit 6, Lesson 2.)

1. Which of the following is true for angle ? Select **all** that apply.

* 
* (From Unit 6, Lesson 5.)



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