### Lesson 2 Practice Problems

1. Which of the following is true?
* 
	1. $sin\left(A\right)=\frac{6}{10}$
	2. $cos\left(A\right)=\frac{6}{10}$
	3. $sin\left(C\right)=\frac{6}{10}$
	4. $cos\left(C\right)=\frac{8}{10}$
1. Here is triangle ABC:
	1. Express the length of segment $AB$ using sine or cosine.
	2. Express the length of segment $BC$ using sine or cosine.
* 
1. Triangle DEF is similar to triangle ABC.
* 
	1. What is the length of segment $DE$? What is the length of segment $EF$? Explain how you know.
	2. Explain why the length of segment $DE$ is $cos\left(D\right)$ and the length of segment $EF$ is $sin\left(D\right)$.
1. Here is a triangle.
* Find $cos\left(A\right)$, $sin\left(A\right)$, and $tan\left(A\right)$. Explain your reasoning.
* 
1. Sketch and label a right triangle $ABC$ with $tan\left(A\right)=2$.
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1. The point $\left(1,4\right)$ lies on a circle with center $\left(0,0\right)$. Name at least one point in each quadrant that lies on the circle.
* (From Unit 6, Lesson 1.)



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