

Name: _____

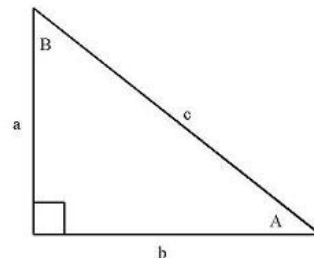
Chapter 8- Section 8.1 Trig Functions and Right Triangles

TICKET-IN-THE-DOOR

In order to be prepared for class you must watch the module and complete the following activity. This is due first thing when you get to class.

Check your understanding:

1. Consider the following figure
 - a. Find a and b if $\sin A = 0.46$, and $c = 6$

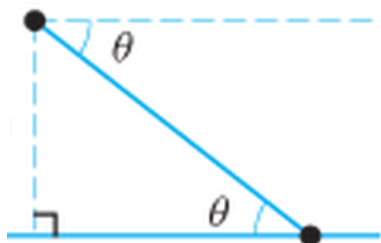


- b. Find a and c if $\cos A = 0.71$, and $b = 4$

- c. Find A°, B°, c , if $a = 7$ and $b = 2$

2. The grade of the road is 7.2%. What **angle** does the road make with the horizontal? Round your answer to 3 decimal places.

3. A plane is flying at an elevation of 35,000 feet when the Gateway Arch in St. Louis, Missouri comes into view. The pilot wants to estimate her horizontal distance from the arch, so she notes the angle of depression, 32° , between the horizontal and a line joining her eye to a point on the ground directly below the arch. Hint Label the following.



4. Kathleen starts at point A and walks 9 miles east to point B. Then, she walks 13 miles north to point C. What is the measure of angle ACB? Round to 2 decimal places. (Draw a picture)