Name _____ Period _____.

Trig Practice

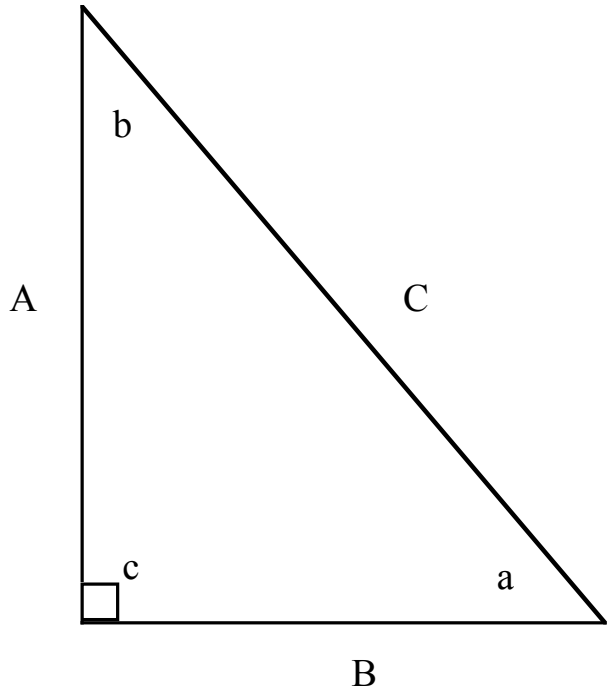
For **Right** triangles ONLY!

$A^2 + B^2 = C^2$

$\sin a = \frac{A}{C}$ $\sin b = \frac{B}{C}$

$\cos a = \frac{B}{C}$ $\cos b = \frac{A}{C}$

$\tan a = \frac{A}{B}$ $\tan b = \frac{B}{A}$



Use trig (sine, cosine or tangent) to solve the following problems:

1. You need to determine the distance across a river. You set up a right triangle where the baseline is 25 meters and one angle is 90°. You measure the other angle to a point on the opposite side of the river to be 25°. What is the distance across the river?

2. Further downstream you set up another baseline of 25 meters and one angle of 90°. When you measure the second angle it is 69°. How far across the river is it here?

3. You set up a base line of 100 meters and measure the angle at each end while pointing to a distant object. The angle at each end is 49°. How far away is the object.

4. Sighting on the same 100 meter baseline at another object the angle at each end is 84°. How far away is this object?

5. Using the diameter of the earth as a baseline (12756 km) you measure the angle to the moon at each end and find that the angle is 89.048°, How far away is the moon?

6. Using the earth's orbit as a baseline (299,200,000 km) how far away would an object be if the angle at each end of the baseline is 85.34°?