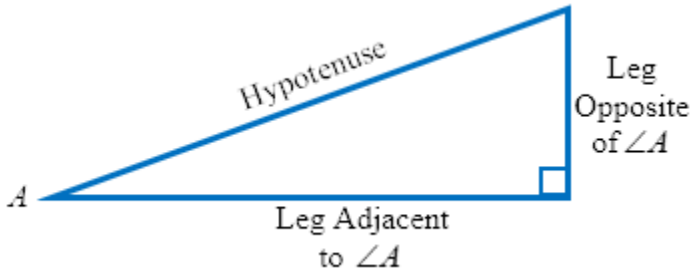
Geometry
Ch. 9C: HW #1: Review of **SOHCAHTOA**

Name: _____
Period: ____

Core Concept



If $\angle A$ is an _____ angle

in a _____ triangle then

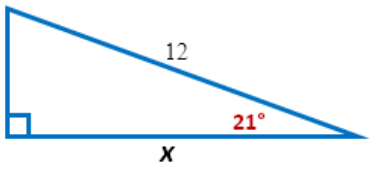
$\sin(A) =$

$\cos(A) =$

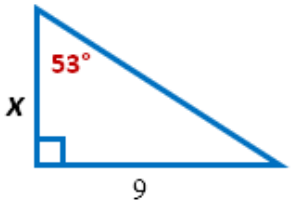
$\tan(A) =$

Find the indicated value for each right triangle. Clearly show the trig equation used to find the answer. Round to the nearest hundredth.

1)



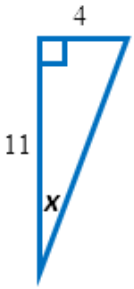
2)



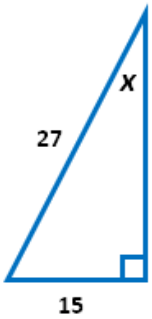
3)

Find the indicated value for each right triangle. Clearly show the trig equation used to find the answer. Round to the nearest tenth.

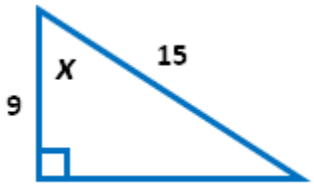
4)



5)

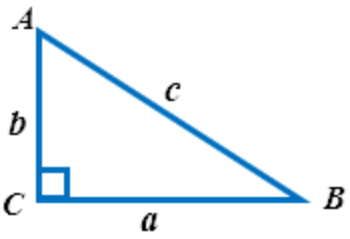


6)



Solve the right triangle. This means to find all the missing sides and angles. You may use trigonometry, Pythagorean Theorem, or Sum of Angles in a Triangle = 180°. Round side lengths to the nearest hundredth and angles to the nearest tenth.

7) $m\angle A = 49°$ and $c = 15$ cm.

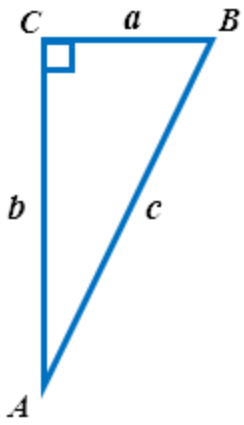


$m\angle B =$ _____ °

$a =$ _____

$b =$ _____

8) $a = 2$ cm and $b = 5.5$ cm



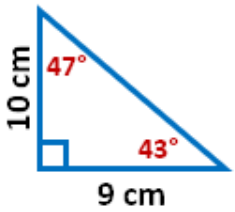
$m\angle A =$ _____ °

$m\angle B =$ _____ °

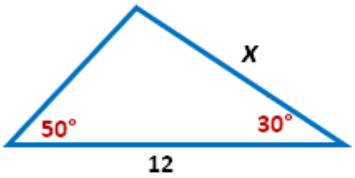
$c =$ _____

Error analysis:

9) Sam's solution to a triangle problem is shown below. Julie looked at the triangle shown and knew immediately that Sam had an error in his work. How does she know?



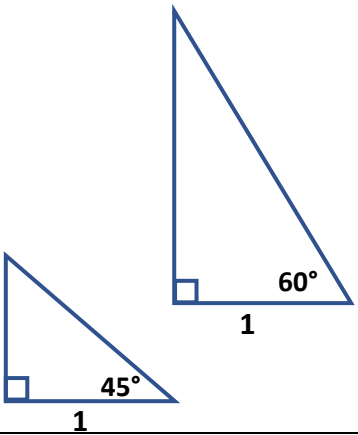
10) Explain what is wrong with using the equation below to solve for x.



$$\sin(50°) = \frac{x}{12}$$

Exact Trig Values. No Calculator

11) Fill in the missing sides and angles on the special right triangles:



12) Find the exact (no decimals approximations) value of each expression. Leave answer in simple radical form. Use the triangles at left.

a) $\sin(60^\circ)$

b) $\tan(30°)$

c) $\cos(45^\circ)$

d) $4\sin(30°) + 5\tan(45^\circ)$

e) $\sin^2(60°) + \cos^2(60°)$