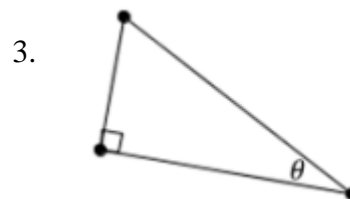
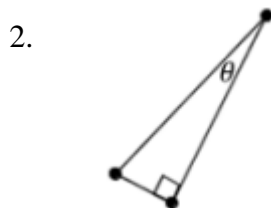
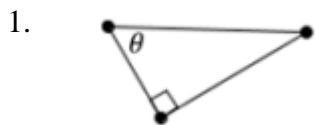


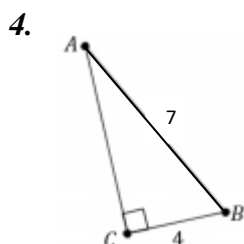
Secondary Math III  
 Right Triangle Trigonometry  
 Assignment 6.1

Name \_\_\_\_\_  
 Period \_\_\_\_\_

Given the reference angle  $\theta$ , label the three sides of the triangle as opposite, adjacent, or hypotenuse.

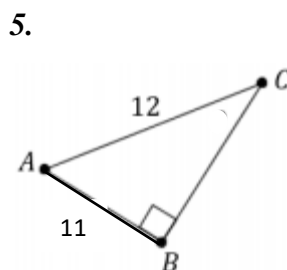


Write the indicated function for each triangle. If you don't have enough information to write the ratio, cross out the indicated function you can't find. (Do not worry about trying to find the missing side with these problems).



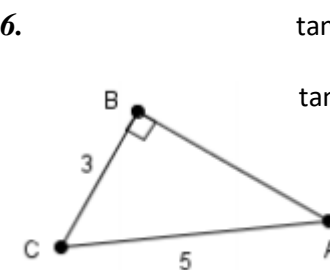
$\sin(A) =$

$\sin(B) =$



$\cos(A) =$

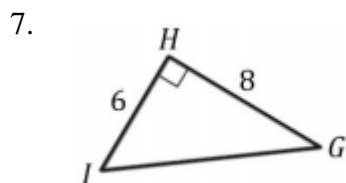
$\cos(C) =$



$\tan(A) =$

$\tan(C) =$

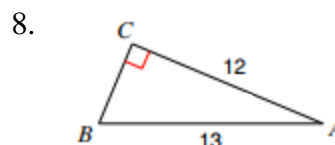
Use the right triangle to find the exact values (trig ratios) of the three main trigonometric functions of the indicated reference angle. You will need to find the missing sides using the Pythagorean Theorem. Be sure to simplify fractions if possible.



$\sin G =$

$\cos G =$

$\tan G =$



$\sin A =$

$\cos A =$

$\tan A =$

Determine the other two trigonometric ratios, given one of the ratios. Draw the triangle and label the sides.

9. If  $\sin \theta = \frac{3}{8}$ , find  $\cos \theta$  and  $\tan \theta$ .

10. If  $\tan \theta = 3$ , find  $\cos \theta$  and  $\sin \theta$ .

**Find the exact value of the following. HINT:** Draw the special triangle that the angle corresponds to or use the hand trick.

11.  $\sin 60^\circ$

12.  $\tan 30^\circ$

13.  $\cos 45^\circ$

**Find the trig ratio using your calculator. Round to four decimal places.**

14.  $\sin 25^\circ$

15.  $\tan 42^\circ$

16.  $\cos 95^\circ$

**Find the trig ratio of the reciprocal functions using your calculator. Round to four decimal places.**

17.  $\csc 53^\circ$

18.  $\cot 28^\circ$

19.  $\sec 45^\circ$

**Applications of Trigonometry:**

**Find the length of the missing side ( $x$ ) using an equation involving a trig ratio. Round answers to the nearest tenth.**

