

1. Find one solution to the following equation. Assume all angles involved are acute angles.

$$\cot(\theta - 8^\circ) = \tan(4\theta + 13^\circ)$$

2. Suppose ABC is a right triangle with sides of lengths a , b , and c and right angle at C . Find the unknown side length using the Pythagorean Theorem, and then find the values of the six trig function for angle B .

$$a = 3, c = 4$$

3. Give the exact values of the following expressions.

a) $\sin 45^\circ$

b) $\cot 45^\circ$

c) $\tan 30^\circ$

d) $\csc 60^\circ$

e) $\sec 30^\circ$

f) $\csc 30^\circ$

g) $\cos 30^\circ$