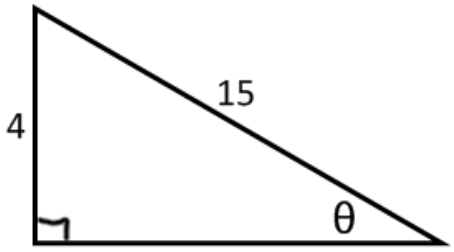
Name_____ Algebra 2 Practice Quiz

SOHCAHTOA – Law of Sines – Law of Cosines

1. Evaluate the six trig functions of the angle θ. Write your answers in simplest radical form. Show/explain your work.

sin θ = _____ cos θ = _____ tan θ = _____



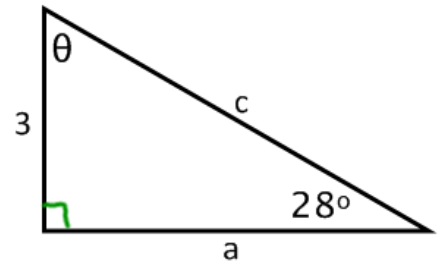
csc θ = _____ sec θ = _____ cot θ = _____

2. Let θ be an acute angle of a right triangle. Draw and label the triangle. Then find the values of the other five trig functions of θ. Write your answers in simplest radical form. Show/explain your work.

sin θ = $\frac{4}{5}$ cos θ = _____ tan θ = _____ csc θ = _____

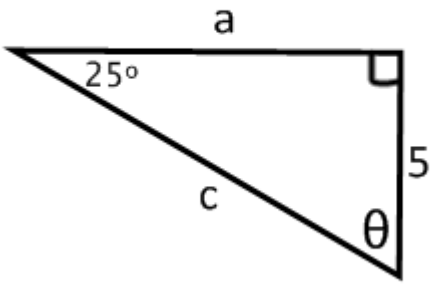
sec θ = _____ cot θ = _____

3. Find each missing side and angle. Round answers to the nearest hundredth. Show work.



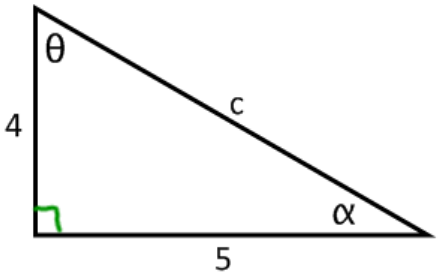
a = _____ c = _____ θ = _____

4. Find each missing side and angle. Round answers to the nearest hundredth. Show work.



a = _____ c = _____ θ = _____

5. Find each missing side and angle. Round answers to the nearest hundredth. Show work.



c = _____ α = _____ θ = _____

6. Solve triangle ABC with $a = 6$, $A = 31°$, and $B = 16°$. (Find all missing sides and angles)

7. Solve triangle ABC given that $A = 44°$, $B = 42°$, and $b = 64$. (Find all missing sides and angles)

8. Solve triangle ABC with $b = 3$, $c = 9$, and $A = 98°$. (Find all missing sides and angles)

9. Solve triangle ABC given that $a = 20$, $b = 21$, and $c = 10$. (Find all missing sides and angles)