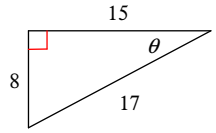
Kuta Software - Infinite Algebra 2 Name_____

Right Triangle Trig. - Evaluating Trig. Ratios

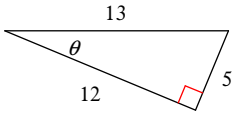
Date_____ Period____

Find the value of the trig function indicated.

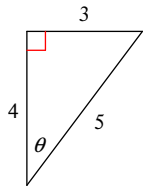
1) sec θ



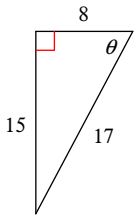
2) sec θ



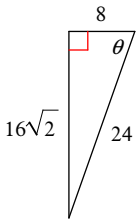
3) cot θ



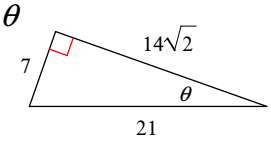
4) csc θ



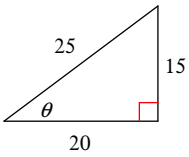
5) csc θ



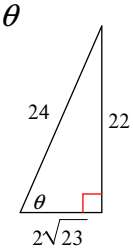
6) cos θ



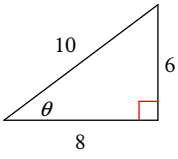
7) cot θ



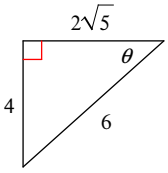
8) tan θ



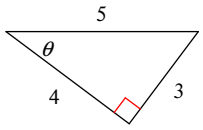
9) tan θ



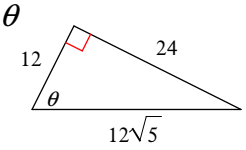
10) cot θ



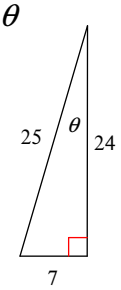
11) tan θ



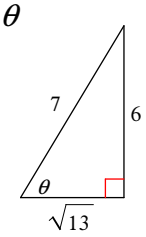
12) cot θ



13) tan θ



14) sin θ



Find the value of each. Round your answers to the nearest ten-thousandth.

15) cos 10°

16) sin 60°

17) csc 21°

18) cos 60°

19) tan 40°

20) csc 59°

21) csc 56°

22) cot 65°

23) tan 10°

24) tan 25°

Find the value of the trig function indicated.

25) Find csc θ if tan $\theta = \frac{3}{4}$

26) Find cot θ if sec $\theta = 2$

27) Find tan θ if sin $\theta = \frac{4}{5}$

28) Find cot θ if sec $\theta = \frac{5}{4}$

29) Find sec θ if sin $\theta = \frac{3\sqrt{13}}{13}$

30) Find cot θ if sin $\theta = \frac{12}{13}$

Critical think questions:

31) Draw a right triangle that has an angle with a tangent of 1.

32) What is the slope of the hypotenuse for #9? How does that compare to tan θ? Why?

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Right Triangle Trig. - Evaluating Trig. Ratios

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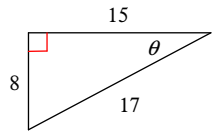
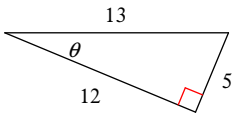
Find the value of the trig function indicated.

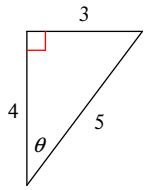
1) sec θ $\frac{17}{15}$



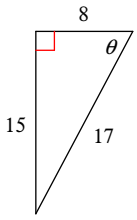
2) sec θ $\frac{13}{12}$



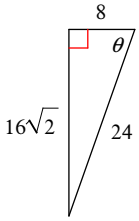
3) cot θ $\frac{4}{3}$



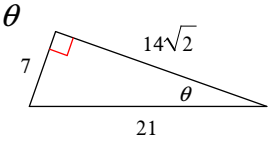
4) csc θ $\frac{17}{15}$



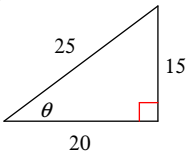
5) csc θ $\frac{3\sqrt{2}}{4}$



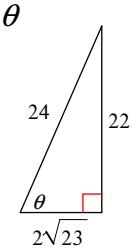
6) cos θ $\frac{2\sqrt{2}}{3}$



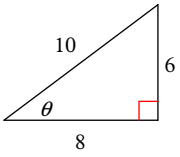
7) cot θ $\frac{4}{3}$



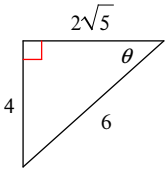
8) tan θ $\frac{11\sqrt{23}}{23}$



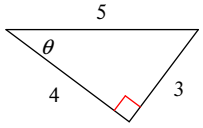
9) tan θ $\frac{3}{4}$



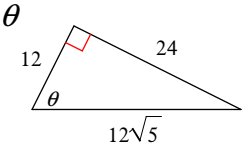
10) cot θ $\frac{\sqrt{5}}{2}$



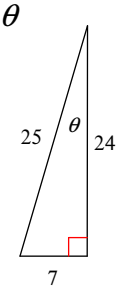
11) tan θ $\frac{3}{4}$



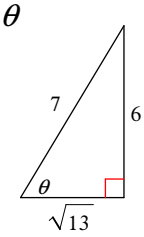
12) cot θ $\frac{1}{2}$



13) tan θ $\frac{7}{24}$



14) sin θ $\frac{6}{7}$



Find the value of each. Round your answers to the nearest ten-thousandth.

15) cos 10°
0.9848

16) sin 60°
0.8660

17) csc 21°
2.7904

18) cos 60°
0.5000

19) tan 40°
0.8391

20) csc 59°
1.1666

21) csc 56°
1.2062

22) cot 65°
0.4663

23) tan 10°
0.1763

24) tan 25°
0.4663

Find the value of the trig function indicated.

25) Find csc θ if tan $\theta = \frac{3}{4}$ $\frac{5}{3}$

26) Find cot θ if sec $\theta = 2$ $\frac{\sqrt{3}}{3}$

27) Find tan θ if sin $\theta = \frac{4}{5}$ $\frac{4}{3}$

28) Find cot θ if sec $\theta = \frac{5}{4}$ $\frac{4}{3}$

29) Find sec θ if sin $\theta = \frac{3\sqrt{13}}{13}$ $\frac{\sqrt{13}}{2}$

30) Find cot θ if sin $\theta = \frac{12}{13}$ $\frac{5}{12}$

Critical think questions:

31) Draw a right triangle that has an angle with a tangent of 1.

Any right isosceles triangle.

32) What is the slope of the hypotenuse for #9? How does that compare to tan θ? Why?

$\frac{3}{4}$ It's the same as tan θ since rise/run = opp/adj