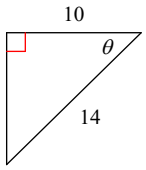
Math-3 Name_____ ID: 1

SM3-A HW #9-1 (Trig Ratios)

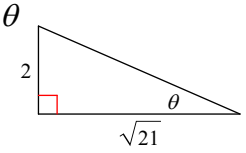
Date_____ Period____

Find the value of the trig function indicated. Do not give these values in decimal form. I want them in fraction form with simplified radicals (if applicable).

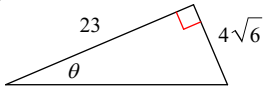
1) tan θ



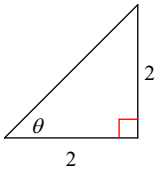
2) sin θ



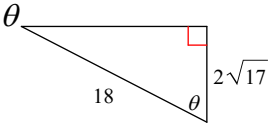
3) cot θ



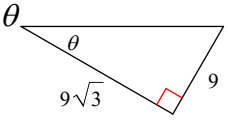
4) csc θ



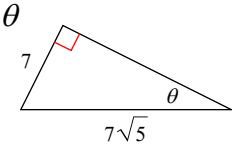
5) sec θ



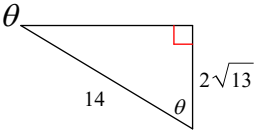
6) sin θ



7) sin θ



8) cot θ



In each triangle ABC, angle C is a right angle, little side 'a' is opposite angle A, etc. Find the value of the trig function indicated (in simplified radical form if applicable).

9) Find csc A if $b = 24,\ a = 24$

10) Find cot A if $a = 8,\ c = 17$

11) Find csc A if $b = 12,\ c = 4\sqrt{10}$

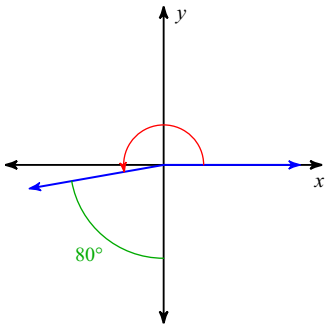
12) Find cos A if $c = 2\sqrt{2},\ b = 2$

13) Find sin A if $b = \sqrt{17},\ a = 8$

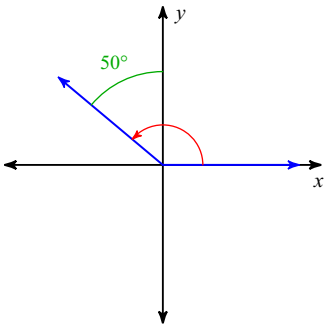
14) Find tan A if $b = 15,\ c = 23$

Find the measure of each:
a) Standard Position angle
b) Reference Angle
c) In which quadrant is the terminal side of the angle?

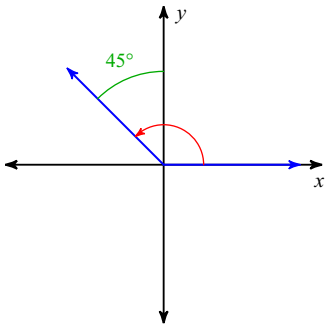
15)



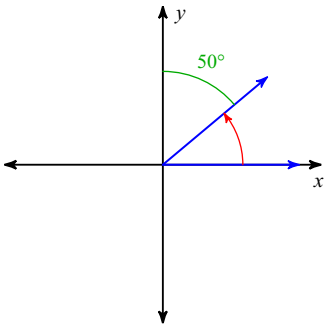
16)



17)



18)



19) For what type of triangles are "trig ratios" valid?

20) In your trig tables, why is there only one entry in the sine column for a 30 degree angle, or for that matter, why does each angle only have one entry in the sine, cosine, or tangent column for that angle?

21) Describe what a "standard position angle" is.

22) If trigonometric ratios are only defined for right triangles, and right triangles do not have obtuse angles, how is it possible to find the sine of 120 degrees?