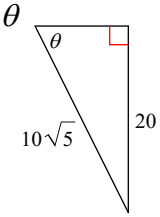
Math-3A Name_____ ID: 1

SM3-A HW 9-3 (Review)

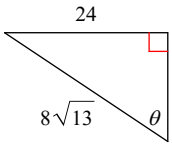
Date_____ Period____

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) cos θ

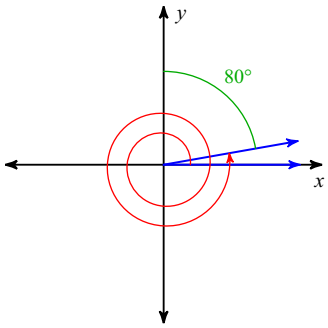


2) csc θ



Find the measure of each angle.

3)



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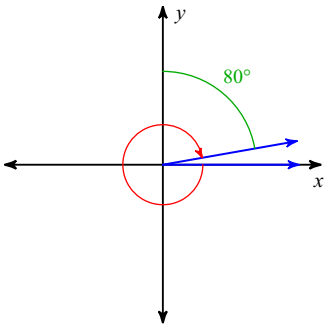

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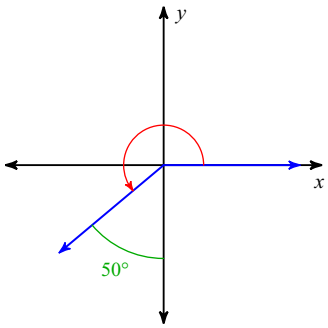

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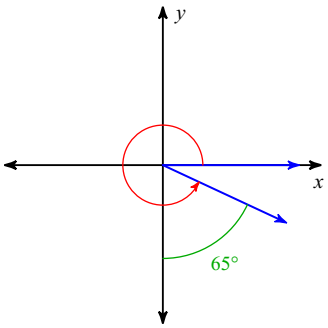


Convert each degree measure into radians.

7) 145°

8) 135°

Convert each radian measure into degrees.

9) $-\frac{5\pi}{4}$

10) $\frac{11\pi}{18}$

Find a positive and a negative coterminal angle for each given angle.

11) $205°$

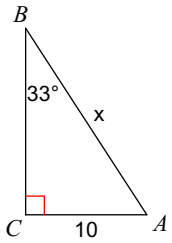
12) $-224°$

13) $\frac{59\pi}{36}$

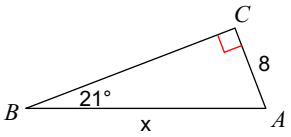
14) $-\frac{7\pi}{10}$

Find the measure of each side indicated. Round to the nearest tenth.

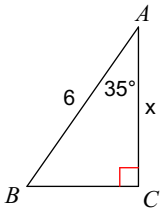
15)



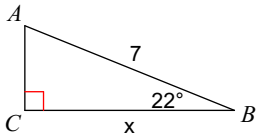
16)



17)



18)



19) The half-life of a certain isotope is 15 minutes.

a) Write a base 'e' exponential equation that models the decay of this isotope. (Round "k" to the nearest ten-thousandth.)

b) How long will it take (to the nearest 1/10 minute) for the isotope to decay to one-tenth its original amount?

20) Solve. Check for extraneous solutions.

$$\frac{1}{5} = \frac{n^2 + 6n + 5}{5n} - \frac{1}{n}$$

Solve each equation.

21) $\log_9 3x^2 + \log_9 3 = 3$

22) $3^{x+2} = 9^{x-4}$