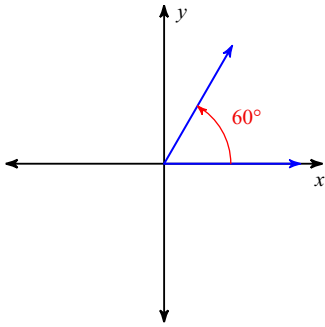


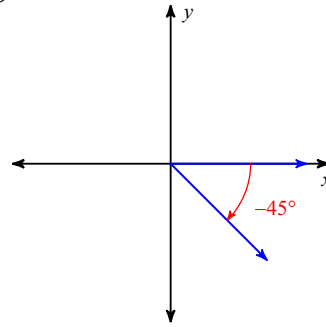
SM3 HW#6-2 (exact trig ratios)

Find the exact value of each trigonometric function.

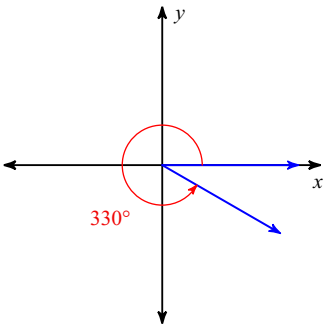
1) $\tan \theta$



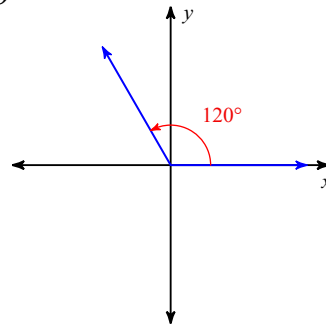
2) $\sin \theta$



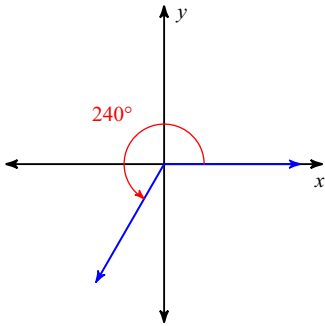
3) $\sin \theta$



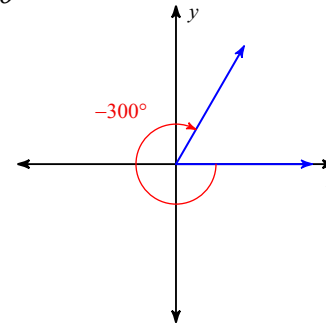
4) $\sin \theta$



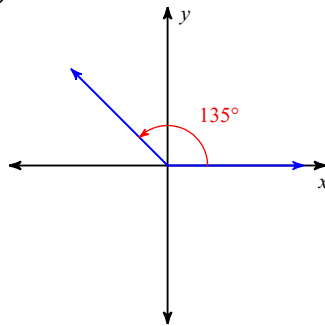
5) $\tan \theta$



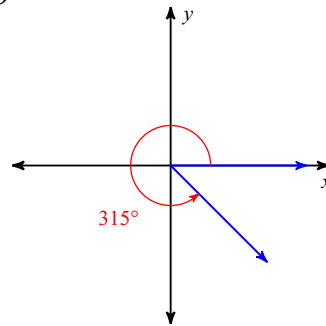
6) $\cos \theta$



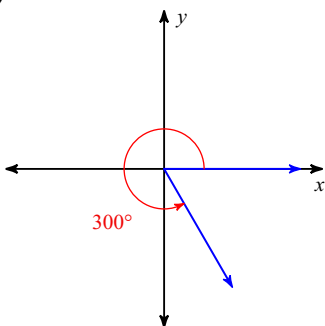
7) $\cos \theta$



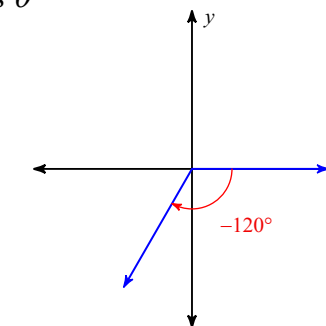
8) $\sin \theta$



9) $\tan \theta$



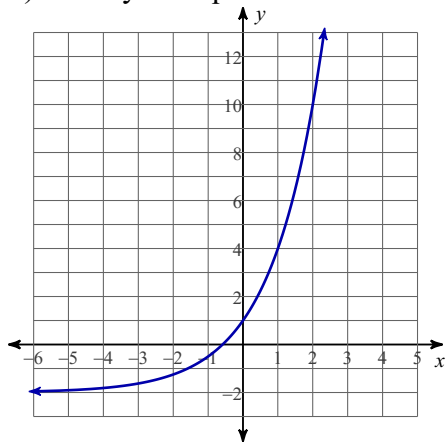
10) $\cos \theta$



- 11) a) Write the vertex form equation. (Show all of your work.)
 b) Find the zeroes of the equation.

$$y = x^2 - 8x + 3$$

- 12) a) Write the equation for the graph. The graph passes through the ordered pairs (0, 1) and (1, 4)
 b) Write your equation from 'a' as a base 'e' exponential equation.



Find the inverse of each function.

13) $y = \log_4 x + 6$

14) $y = \frac{6^x}{2}$

Solve each equation.

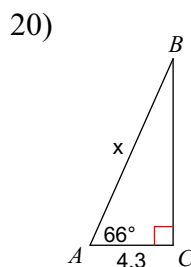
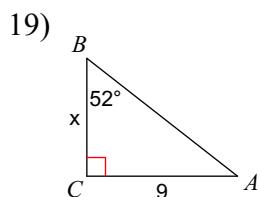
15) $8 \cdot 2^{-3x} = 1$

16) $\log_7 (x - 9) = 2$

- 17) Find the time required for an investment of \$100 to double if the money is placed in a simple interest account (compounded once per year) that earns 4.5% interest.

- 18) A pizza was cooked in an oven at 425 degrees Fahrenheit. The pizza was removed from the oven and placed on the counter in a room that was at 75 degrees. After 10 minutes the temperature of the cake was 200 degrees.
- Find the equation that models this situation using: $T(t) = AB^t + k$
 - Convert this equation to a base 'e' exponential equation of the form: $T(t) = Ae^{kt} + m$
 - How long will it take to cool to 105 degrees?

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



Find the value of the trig function indicated.

