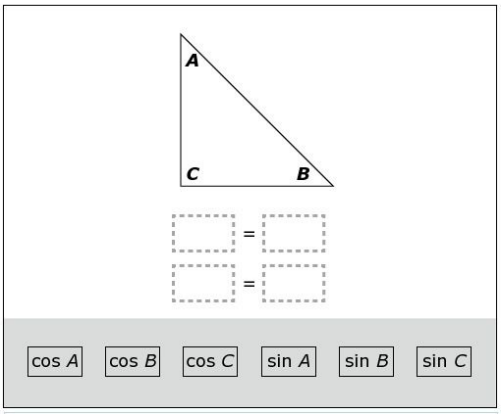
A11.3.Trig on a Graph	Name
1. If (9,12) is on the terminal side. Then the $cos\theta =$ $sin\theta =$ $tan\theta =$	2. If (6,8) is on the terminal side. Then the $cos\theta =$ $sin\theta =$ $tan\theta =$
3. Given the $cos\theta = \frac{24}{25}$, and you are in Quadrant I. Find: $cos\theta =$ $sin\theta =$ $tan\theta =$	4. Given the $sin\theta = \frac{20}{29}$, and you are in Quadrant I. Find: $cos\theta =$ $sin\theta =$ $tan\theta =$
5. Given that $sin\theta = \frac{4}{5}$, and you are in Quadrant I, find $cos\theta$.	6. An angle has $tan\theta = 0.75, find\ cos\theta$
7. In, 2005, a study shows that a population of 80 foxes in an area are dying at a rate of 8%. Equation? How many foxes will there be in 10 years? How many years until this area only has 10 foxes left? What is the year?	8. Given that $cos\theta = \frac{2}{3}, find\ tan\theta$.

9.

ΔABC is a right triangle with $m\angle C = 90°$.

Use the relationships in the triangle to create two true statements.



10. Factor completely:

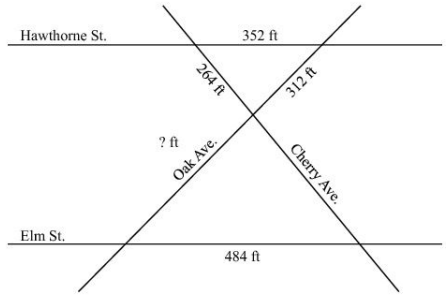
a) $4x^2 - 25$

b) $4x^2 - 12x$

11. If $\sin\theta = \frac{5}{13}$, *and you are in quadrant I, what does the* $\cos\theta =$

12.

Hawthorne Street and Elm Street are parallel to each other in the map shown.



How far, in feet, is the intersection of Elm Street and Oak Avenue from the intersection of Oak Avenue and Cherry Avenue?

(A) 312 feet
(B) 363 feet
(C) 429 feet
(D) 444 feet

13. Change from Vertex form to Standard Form:
$f(x) = (x-5)^2 + 32$

14. Change the following from Standard form to Vertex Form: $f(x) = -4x^2 + 6x + 3$

Is the vertex a max or a min or an x-Intercept?

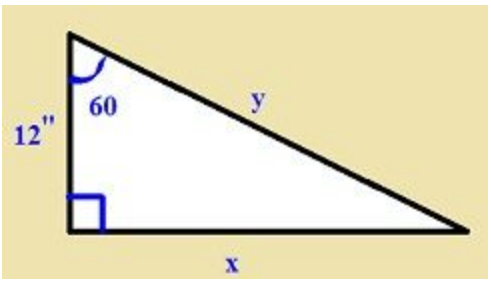
15. Use the rules of Exponents to simplify:

a.

$$\left(\frac{4^{\frac{3}{2}}x^{\frac{8}{5}}}{x^{\frac{3}{5}}}\right)\left(\frac{215x^{9}}{x^{-12}}\right)^{0}$$

b. $$\left(\frac{125x^{3}}{y^{-12}}\right)^{\frac{2}{3}}$$

16.



Find the value of x and y.

17.

1

What is the solution set of $x^2 - 3x - 18 = 0$?

(A) {–9, 2}

(B) {–6, 3}

(C) {–3, 6}

(D) {–2, 9}

In the above quadratic what are its terms?

What are its Factors?

What are its coefficients?

18-21. Write at least 7 sentences (More for Extra Credit) about things you know about the following Quadratic from the table. Include things like Standard Form, Vertex Form, X-Intercept Form. Acceleration, Concavity, Initial Velocity, Starting Height, x/y Intercepts, Maximum/Minimum, Vertex, Domain, Range, Interval Increasing, Interval Decreasing, Speed over an interval, Restrictions, Possible Scenario for the Quadratic.

sec	meters
0	65
1	75
2	65
3	35
4	-15

1._____

2._____

3. _____

4. _____

5. _____

6. _____

7. _____

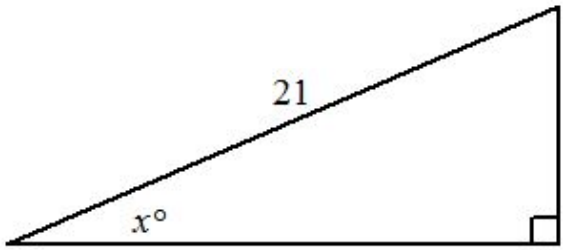
8. _____

9. _____

10. _____

11. _____

22. Find the value of x



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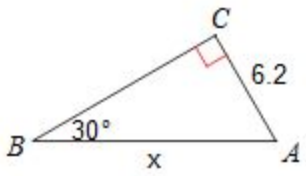
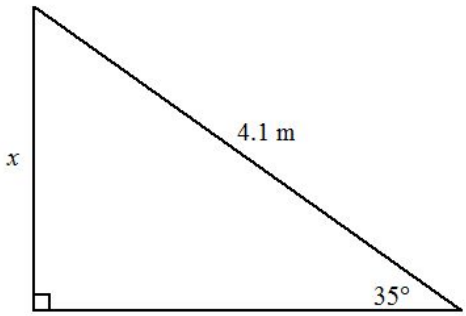
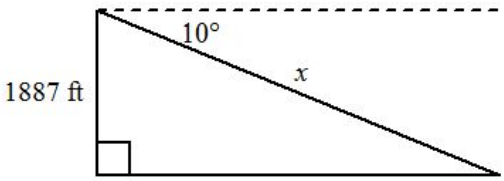
23. Solve for x.



24. A slide 4.1 meters long makes an angle of 35° with the ground. To the nearest tenth of a meter, how far above the ground is the top of the slide?



25. To approach the runway, a small plane must begin a 10° descent starting from a height of 1887 feet above the ground. To the nearest tenth of a mile, how many miles from the runway is the airplane at the start of this approach?



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