Algebra 1

Section 9 – Quizzes

Name: _____

Teacher: _____

Date_____ Name _____

Teacher _____ Class: Algebra I

Lesson 8| Quiz questions

Solve and graph each inequality.

1) $4x + 10 \leq -2x - 8$

2) $4(x - 3) - 2x \leq 14 - 2(3x + 1)$

3) $\frac{5x}{6} + \frac{2}{3} \leq \frac{x}{6} - \frac{2}{3}$

4) $5(x - 3) - 2x > 12 - 3(2x - 3)$

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Lesson 82 Quiz questions

1) $10 > 4x + 4 - 2x > -2$

2) Of five puppies in a litter, four have weights of 4.8 lb, 4.9 lb, 4.5 lb, and 4.4 lb. What could be the weight of the fifth puppy if the average weight of all five puppies is to be between 4.2 and 4.8 lb?

3) $-8 \leq 4x + 6 + 3x < 13$

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Lesson 83 Quiz questions

1. Determine whether the polynomial $X^2+18X + 81$ is a perfect square trinomial. If it is, factor the trinomial.

2. Determine whether the binomial below is the difference of two squares. If it is, factor the binomial. $9X^2 – 100$

3. Determine whether the trinomial below is a perfect square trinomial. If it is, factor the trinomial. $32X^2 - 48X + 18$

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Lesson 84 Quiz questions

1. A pine cone falls from the top of a 90 foot pine tree. The equation $90 - h = 16t^2$ can be used to find the height ***h*** of the pine cone after falling for ***t*** seconds. Estimate the height of the pine cone after falling 2 seconds.

2. Use a table to graph the function $f(x) = 3X^2$.

3. Determine whether the equation below represents a quadratic function.
   $y + 7X^2 = -5X - 4$

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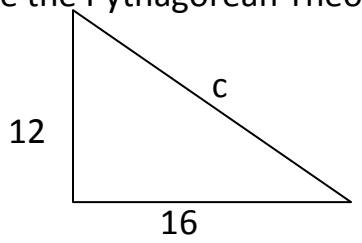
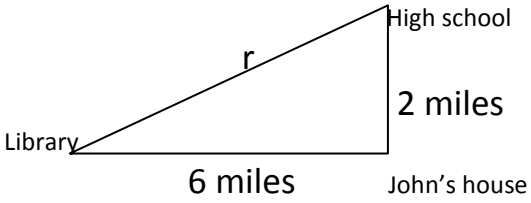
Lesson 85 Quiz questions

1. Determine whether these side lengths form a Pythagorean triple: 9, 16, 25.

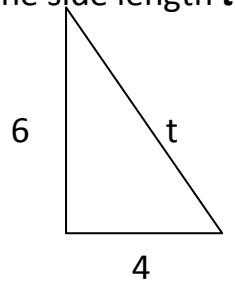
2. Use the Pythagorean Theorem to determine the missing side length c.



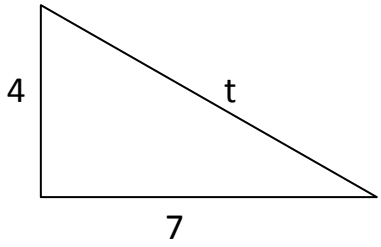
3. John's house is 2 miles from the high school and 6 miles from the library as shown in the diagram below. Find the distance d from the high school to the library. Round your answer to the nearest tenth of a mile.



4. Find the side length ***t*** to the nearest tenth.



5. Use the Pythagorean Theorem to find side length ***t*** to the nearest tenth.



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Lesson 86 Quiz questions

1. Find the distance between the points (4,-2) and (6,4).

2. Find the midpoint of the line segment with endpoints (-8,5) and (2,2).

3. Find the distance between the points (5,2) and (3,8).

4. Find the midpoint of the line segment with endpoints (-8,1) and (5,-9).

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Lesson 87 Quiz questions

1. Factor $4x^2 + 8xy + 3x + 6y$

2. Factor $3y^2 - 20y + 12 - 5y^3$

3. Factor $20x^3y - 12x^3 + 10x^2y - 6x^2$

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Lesson 88 Quiz questions

1. $\frac{4a^3b^4}{3ab^2} \times \frac{9a^2b^2}{8a^2b}$

2. $\frac{5x^3y^3}{6xy^2} \div \frac{10x^2y^2}{9x^2y}$

3. $\frac{3a^2b + 2ab}{4a} \times \frac{14}{3ab + 2b}$

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Lesson 89 Quiz questions

1. Give the coordinates of the parabola's vertex. Then give the maximum or minimum value and the domain and range of the function.

2. A rock is thrown from a height of 25 feet above the ground. The rock starts with a vertical speed of 96 feet per second. Ignoring friction, the equation $y = -16t^2 + 96t + 25$ gives the height ***y*** as a function of time ***t***. Find the highest point the rock reaches and how long it takes to reach this point.

3. Find the axis of symmetry for the quadratic function $y = -2x^2 + 8x + 3$

4. Find the zeros of the function shown in the graph.

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Lesson 90 Quiz questions

1. Add $\frac{y^2}{8y} + \frac{5y^2}{8y}$

2. Add $\frac{2y^2}{3y^2} + \frac{2y^3}{6y}$ simplify your answer.

3. Add $\frac{3x^2}{15x} + \frac{2x^2}{15x}$ simplify your answer