

A1 S2 w10d2 Review Chap 9

Alg I Week 10 Tue

Warm Up

1. Skill 15: Factor special polynomials completely.

a. $8y^2 - 200z^2$

b. $81x^2 - 90x + 25$

2. Skill 16: Solve a quadratic equation by factoring.

$$-6x^2 - 23x = 20$$

3. Skill 17: Solve by Completing the Square. Leave the answer as an integer or in simplified radical form.

$$k^2 - 12k + 23 = 0$$

4. Skill 18: Solve a quadratic equation using the quadratic formula. Give answer in simplified radical form AND then round answers to the nearest hundredth.

$$7x^2 = 2x + 8$$

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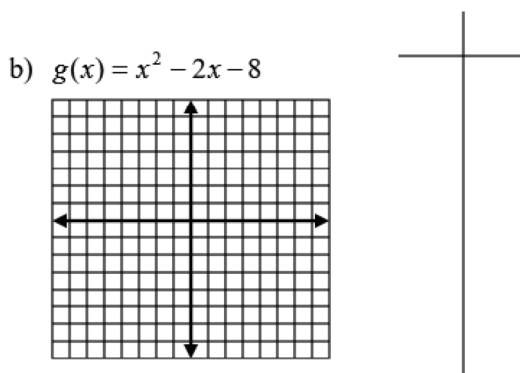
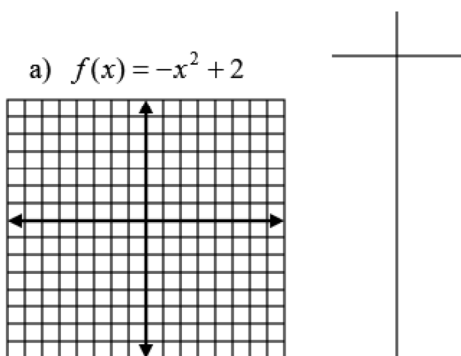
Alg 1 Week 10 Tuesday

Chapter 9 Review #3

1. Order each group of quadratic functions from widest to narrowest.

a) $f(x) = 3x^2; f(x) = \frac{2}{3}x^2; f(x) = \frac{5}{3}x^2$ b) $g(y) = -7y^2; g(y) = 4y^2; g(y) = -\frac{2}{5}y^2$

2. Graph each function. State the vertex and axis of symmetry.



Vertex: (,) Axis of symmetry:

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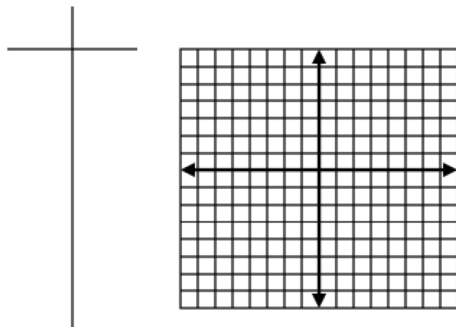
3. Simplify.

a) $\sqrt{975}$

b) $\sqrt{2352}$

4. **Solve** by graphing.

$$x^2 - x - 6 = 0$$



x= _____

5. **Solve** by factoring.

$$2x^2 + x = 6$$

x= _____

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6. Solve by completing the square.

$$x^2 - 10x + 2 = 0$$

7. Solve by the quadratic formula.

$$4x^2 - 1 = 5x$$

In 8-11, solve by any method. (Choose the method that is the quickest!)

8. $x^2 + 2x - 3 = 0$

9. $3x^2 = 54$

10. $x^2 + 4x = 7$

11. $5 - 3x^2 = 7x$

Find the discriminant and state the number of solutions for each quadratic equation.

12. $x^2 - 6x + 9 = 0$

13. $3x^2 = 2x + 5$

14. $4x^2 = 8x - 5$