Name:_____ Date:_____ Period:_____ HW#_____

Solving Absolute Value Equations & Simplifying Radicals & Quadratics Review

Directions: Solve each equation. Check your answers. Then, place your solutions on the numberline.

1. $|x| = 2$

2. $|4| = x$

3. $|y| = -5$

4. $|x + 2| = 11$

5. $|y - 1| = 3$

6. $|2h| = 14$

7. $\left|\frac{x}{3}\right| = -2$

8. $|4m - 3| + 5 = 7$

Write each in simplest radical form. Check your answers using a calculator by evaluating the decimal to the nearest thousandth.

9. $\sqrt{54}$

10. $\sqrt{400}$

11. $\sqrt{48}$

12. $4\sqrt{8}$

13. $7\sqrt{45}\sqrt{5}$

14. $\sqrt{96}$

15. Find the characteristics of the quadratic $y = x^2 + 8x + 12$. Then, draw and label the graph.

Factored Form:

Zeros:

Y-intercept:

Line of Symmetry:

Vertex:

3 other points on the graph: