Name_____Date_____Hour_____

Worksheet 6.4 – Solving Absolute Value Equations and Inequalities – Textbook pages 353-358

LEVEL 1 Solve the following equations. Show your work.

1) $|x + 3| = 9$ 2) $|x - 5| = 8$ 3) $|6x + 3| = 21$ 4) $|\frac{1}{4}x - 9| = 6$

LEVEL 2 Solve the following inequalities. Show your work.

5) $|x + 2| < 5$ 6) $|x + 4| > 9$

7) $|3x - 6| > 3$ 8) $|2x - 3| \leq 7$

LEVEL 3 Solve the following inequalities and graph their solutions. Show your work.

9) $|x + 7| \geq 1$ 10) $|4x - 5| < 11$ 11) $|5x + 4| > 0$

_____ _____ _____

LEVEL 4

12)

Shampoo Prices The average price of a particular brand of shampoo is $3.26. Depending on where you shop, the price may vary by as much as $0.25. Write an absolute value inequality describing the possible prices of the shampoo. Solve the inequality.

a) _____

b) _____