Algebra I

Notes Section 5.6
Solve Absolute Value Inequalities

Big Ideas
1. How to rewrite and absolute value inequality as a compound inequality.

VOCABULARY

AND: _____   _____

OR: _____   _____

EXAMPLE 1   Solve the inequality and then graph your solution.

a) $|x| \geq 6$ _____

b) $|x| \leq 0.5$ _____

EXAMPLE 2   Solve and then graph your solution.

a) $|x - 5| \geq 7$ b) $|x + 2| > 1$

EXAMPLE 3   Solve.

a) $|-4x - 5| + 3 < 9$

b) $|2x + 3| - 4 \leq 5$

c) $3|5m - 6| - 8 \leq 13$

Example 4 You are buying a new computer and find 10 models in a store advertisement. The prices are $890, $750, $650, $370, $660, $670, $450, $650, $725 and $825.

a) Find the mean of the prices.

b) You are willing to pay the mean price with an absolute deviation of at most $100. How many of the computer prices meet your condition?