SOLVING COMPOUND INEQUALITIES

Write an equation for each situation below and solve.

1. Maggie bought a new dress. The total cost of the dress was $69.20 which included an 8.75% tax. What was the original price of the dress?

Equation:_____

2. People over the age of 55 receive a 15% discount on their meals at IHOP. If the discounted price of the meal is $8.96, what is the regular price of the meal?

Equation:_____

When two simple inequalities are combined into one statement by the words AND or OR, the result is a _____.

All real numbers greater than 2 AND less than 6.

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All real numbers less than 2 OR greater than 6.

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EXAMPLE: Write a compound inequality and graph the solution.

1. A water analyst recommends that the pH level of swimming pool water be between 7.2 and 7.6 inclusive.

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EXAMPLES: Solve each compound inequality and graph the solution.
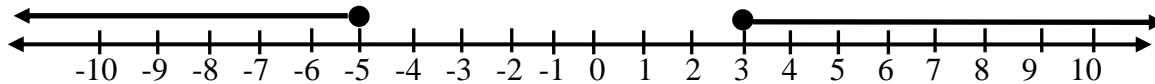
2. $4 \le x + 2 \le 8$

3. $-5 < 2x + 3 < 9$
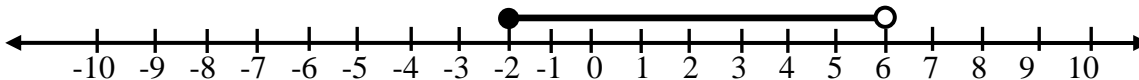
4. $2x - 4 < -6$ OR $2x + 3 \ge 11$

EXAMPLES: Write the compound inequality shown by each graph.

5.

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

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6.

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

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