

Homework

Name: _____

Date: _____

Hour: _____

Homework 3.6 Solving Inequalities using Addition and Subtraction

Explain how you would determine whether the following inequalities are true or false.

1.) $5 \geq 2 + 3$

2.) $4 \leq 2 + 3$

3.) $6 < 7 - 3$

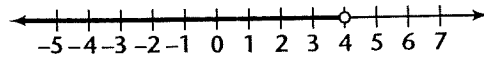
4.) $8 > 10 - 2$

5.) Explain how the properties for inequalities are similar to the properties of equality.

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6.) Explain the steps necessary to solve the inequality $3x - 4 \leq 2x + 1$. Name the property you would use for each step.

7.) How do you write an inequality that describes the points that are shown on the graph?



State whether each inequality is true or false.

8.) $8 > 9 - 1$

9.) $-2 \leq 5 - 7$

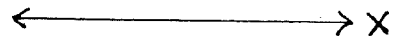
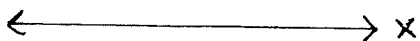
10.) $8 \leq 9 - 1$

11.) $-2 > 5 - 7$

Solve each inequality and graph.

12.) $x + 8 > -1$

13.) $x - 6 \leq 7$

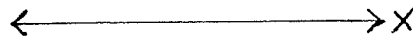


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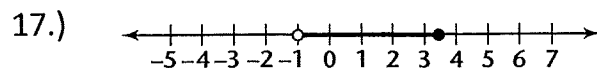
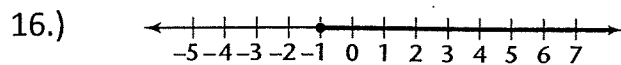
14.) Graph the solution to $x - 4 \geq -1$ on a number line.



15.) Graph the solution to $x + 3 < 2$ on a number line.



Write the inequality that describes the points on the following number lines.



18.) **Sports-** A sport stadium holds 15, 000 people. Everyone at the game has a seat, but the stadium is not full. Write an inequality that models this situation using p as the number of people.

