NAME: _____ HOMEWORK Thursday 5.8.14

Circle the letter of the correct answer.

1. Which of the following is a solution to the inequality $2x - 12 < 22$?

a. 16

b. 17

c. 18

d. 19

2. Which of the following is NOT a solution to the inequality $x + 5 - 4x \leq 23$?

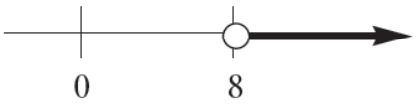
a. –12

b. –6

c. 0

d. 5

3. The following graph represents which inequality?



a. $x \geq 8$

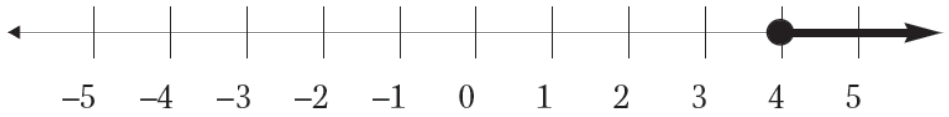
b. $x > 8$

c. $x \leq 8$

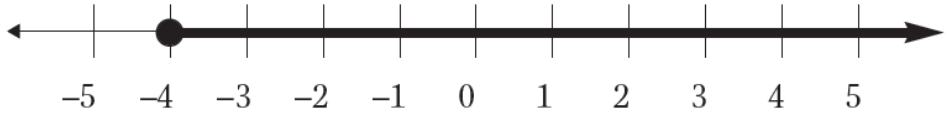
d. $x < 8$

4. Which graph represents the solution to the following inequality? $2x - 6 \geq -14$

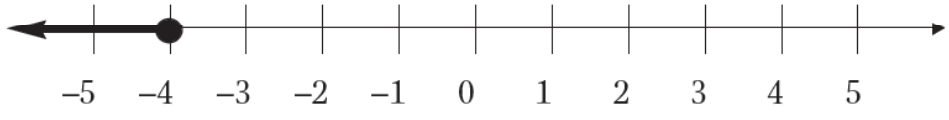
a.



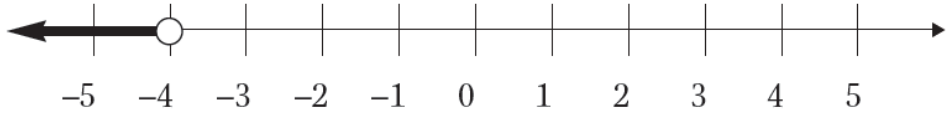
b.



c.



d.



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5. Hector bought 4 candy bars and 3 decks of cards. The candy bars cost \$1.35 each. Hector spent no more than \$12.00. Which of the following inequalities best represents the cost, c, for one deck of cards?

a. $c \leq \$2.20$

b. $c > \$2.20$

c. $c \leq \$3.55$

d. $c > \$3.55$

6. Solve the following inequality:

$$20 - 3x \leq 2x + 25$$

a. $x \leq 1$

b. $x \leq -1$

c. $x \geq 1$

d. $x \geq -1$

7. You want $\frac{1}{2}$ of the length of rope to be more than 7 feet long. How long does the rope need to be?

a. $r > 14$ feet

b. $r > 3.5$ feet

c. $r \geq 14$ feet

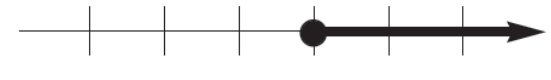
d. $r \geq 3.5$ feet

continued

8. Which graph represents the solution to the following inequality?

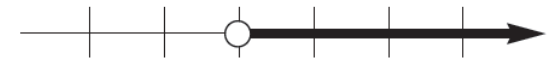
$$3c - 13 < 17 - 2c$$

a.

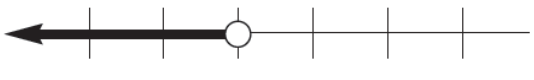


b.

c.



d.



9. You have 48 minutes to get ready. You have 3 chores to do, and it will take you 15 minutes to get ready. How much time can you spend on each chore to be ready on time?

a. $t \leq 3$

b. $t \leq 21$

c. $t \leq 11$

d. $t \leq 9$

10. You want to buy the newest video gaming system in 16 weeks. It costs \$400. You've made a plan to set aside $\frac{1}{4}$ of your earnings and \$10 from your savings account each week. At least how much do you have to make each week?

a. $x \geq \$93.50$

b. $x \geq \$60$

c. $x \geq \$100$

d. $x \geq \$30$

Common Core Standards

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

7.EE.4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.

b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.