

## Lesson 2-4c Homework Practice

### Solve Multi-Step Equations and Their Solutions

Solve each equation. State if the equation has infinitely many, one or no solution.

1.  $14 - (2q + 5) = 2q + 9$

2.  $6m - 5 = 7m + 7 - m$

3.  $(7t - 2) - (-3t + 1) = -3(1 - 3t)$

4.  $\frac{3}{5}k - \frac{1}{10}k = \frac{1}{2}k + 1$

5.  $-\frac{1}{2}d + 2 = -\frac{1}{2}(d + 4)$

6.  $x - (4x - 7) = 5x - (x + 21)$



### Common Core Spiral Review

REVIEW: Solve Proportions

**Solve each proportion.**

1.  $\frac{28}{n} = \frac{7}{9}$

2.  $\frac{m}{36} = \frac{5}{9}$

3.  $\frac{2}{3} = \frac{x}{27}$

- Mr. Savage used 3 gallons of paint to cover 1,350 square feet of wall space. At this rate, how much paint will be needed to cover 1,800 square feet?
- In his last game, the Rams' quarterback completed 10 out of 18 passes he threw. At this rate how many passes will he attempt if he completes 15 passes?

**INEQUALITIES REVIEW**

Inequalities can be expressed through words and symbols, and they can be graphed on a number line.

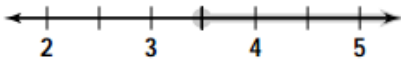
Inequalities			
$<$	$\leq$	$>$	$\geq$
<ul style="list-style-type: none"> <li>less than</li> <li>fewer than</li> </ul>	<ul style="list-style-type: none"> <li>less than or equal to</li> <li>at most</li> <li>no more than</li> <li>a maximum of</li> </ul>	<ul style="list-style-type: none"> <li>greater than</li> <li>more than</li> </ul>	<ul style="list-style-type: none"> <li>greater than or equal to</li> <li>at least</li> <li>no less than</li> <li>a minimum of</li> </ul>

**EXAMPLES**

Graph each inequality on a number line.

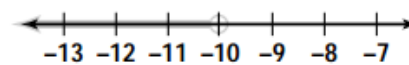
**A**  $x \geq 3.5$

Since  $x$  can equal 3.5, graph a bullet at 3.5. Graph all numbers greater than 3.5 by drawing a line and an arrow to the right.



**B**  $y < -10$

Since  $y$  cannot equal  $-10$ , graph a circle at  $-10$ . Graph all numbers less than  $-10$  by drawing a line and an arrow to the left.



**PRACTICE**

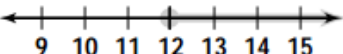
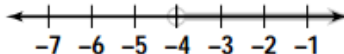
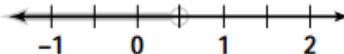
Write an inequality to describe each number.

- |                                  |                                |
|----------------------------------|--------------------------------|
| 1. a number less than $-5$       | 2. a number that is at least 9 |
| 3. a number that is more than 18 | 4. a number no more than $-7$  |

Graph each inequality on a number line.

- |            |                 |             |
|------------|-----------------|-------------|
| 5. $x > 8$ | 6. $y \leq 4.5$ | 7. $n < -1$ |
|------------|-----------------|-------------|

Write an inequality for each graph.

- |  |  |   |
|--|--|---|
| 8.  | 9.  | 10.  |
|--|--|---|



**11. Standardized Test Practice** Which expression describes a maximum number of 8?

- |              |              |           |           |
|--------------|--------------|-----------|-----------|
| A $x \leq 8$ | B $x \geq 8$ | C $x < 8$ | D $x > 8$ |
|--------------|--------------|-----------|-----------|

11. A

Answers: 1.  $x < -5$  2.  $x \geq 9$  3.  $x > 18$  4.  $x \leq -7$  5-7. See Answer Key for graphs. 8.  $x \geq 12$  9.  $x > -4$  10.  $x < 0.5$