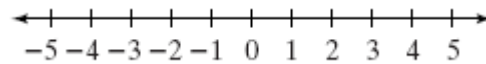
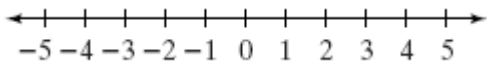


**Solving Two-Step Inequalities Worksheet****Solve each inequality. Graph the solutions on a number line.**

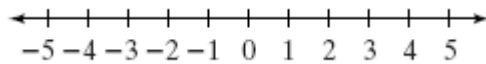
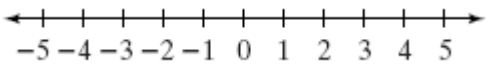
1.  $5x + 2 \leq 17$

2.  $21 \leq 3 + 9x$



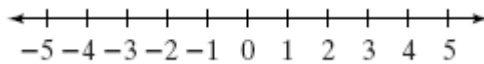
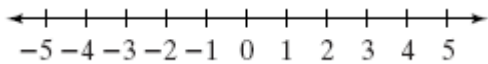
3.  $9 - x > 10$

4.  $27 \leq 7x + 6$



5.  $2x - 5 > 1$

6.  $-2x - 3 \leq -5$



**Solve each inequality.**

**7.**  $9x - 7 \leq 38$

**8.**  $3 < \frac{x}{2} + 1$

**9.**  $-8x + 18 > -22$

**10.**  $50 < 8 - 6x$

**11.**  $-\frac{x}{5} + 6 > -3$

**12.**  $30 \geq -30 - 6x$

**13.**  $15 - 5k \geq 0$

**14.**  $3 - \frac{x}{3} > -4$

**15.**  $-2x - 14 \leq 86$

**16.**  $11w + 6 \geq 182$

**17.**  $\frac{x}{5} - 11 \geq -14$

**18.**  $7 < 4q - 9$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Solve the Two-Step Equations – Integers**

$$5x + 3 = 8$$

$$\frac{a + 2}{2} = -1$$

$$-6 - 2m = 10$$

$$\frac{x}{5} + 7 = 11$$

$$-5 = 7 + 3r$$

$$\frac{n - 6}{3} = -4$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Answers

$$5x + 3 = 8$$

$$x = 1$$

$$\frac{a + 2}{2} = -1$$

$$a = -4$$

$$-6 - 2m = 10$$

$$m = -8$$

$$\frac{x}{5} + 7 = 11$$

$$x = 20$$

$$-5 = 7 + 3r$$

$$r = -4$$

$$\frac{n - 6}{3} = -4$$

$$n = -6$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Solve the Two-Step Equations – Integers**

$$4 + 3p = 19$$

$$\frac{x}{-3} - 2 = 9$$

$$-6k - 13 = 83$$

$$17(x + 5) = 0$$

$$7 = \frac{10 - g}{-2}$$

$$-7 = -11 + \frac{v}{5}$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Answers

$$4 + 3p = 19$$

$$p = 5$$

$$\frac{x}{-3} - 2 = 9$$

$$x = -33$$

$$-6k - 13 = 83$$

$$k = -16$$

$$17(x + 5) = 0$$

$$x = -5$$

$$7 = \frac{10 - g}{-2}$$

$$g = 24$$

$$-7 = -11 + \frac{v}{5}$$

$$v = 20$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Solve the Two-Step Equations – Integers**

$$-24 = 7x + 18$$

$$-8(3 - s) = 32$$

$$\frac{k}{-3} - 11 = -20$$

$$8q = -10q + 36$$

$$\frac{z}{3} = z - 2$$

$$\frac{b + 4}{7} = -3$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Answers

$$-24 = 7x + 18$$

$$x = -6$$

$$-8(3 - s) = 32$$

$$s = 7$$

$$\frac{k}{-3} - 11 = -20$$

$$k = 27$$

$$8q = -10q + 36$$

$$q = 2$$

$$\frac{z}{3} = z - 2$$

$$z = 3$$

$$\frac{b + 4}{7} = -3$$

$$b = -25$$



Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Solve the Multi-Step Equations - Integers**

$$12 + 5x - 8 = 12x - 10$$

$$\frac{x + 2}{x - 3} = 2$$

$$\frac{5x}{2} = 3x + 5$$

$$2(3x - 4) = 3x + 1$$

$$3x = 5(x + 3) - 3$$

$$\frac{x - 5}{2} = \frac{x + 2}{3}$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Answers

$$12 + 5x - 8 = 12x - 10$$

$$x = 2$$

$$\frac{x + 2}{x - 3} = 2$$

$$x = 8$$

$$\frac{5x}{2} = 3x + 5$$

$$x = -10$$

$$2(3x - 4) = 3x + 1$$

$$x = 3$$

$$3x = 5(x + 3) - 3$$

$$x = -6$$

$$\frac{x - 5}{2} = \frac{x + 2}{3}$$

$$x = 19$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Solve the Multi-Step Equations - Integers**

$$4x + 7 - 6x = 5 - 4x + 4$$

$$\frac{x}{2} + \frac{x}{3} = 5$$

$$\frac{3x - 1}{3x + 2} = 4$$

$$3(5x - 2) + 4x = 9x + 6 - 2x$$

$$\frac{5x + 6}{4} = 3x - 2$$

$$5(2x + 3) = 3(4x + 1) - 2(3x + 2)$$

Student Name: \_\_\_\_\_

Score: \_\_\_\_\_

### Answers

$$4x + 7 - 6x = 5 - 4x + 4$$

$$x = 1$$

$$\frac{3x - 1}{3x + 2} = 4$$

$$x = -1$$

$$\frac{5x + 6}{4} = 3x - 2$$

$$x = 2$$

$$\frac{x}{2} + \frac{x}{3} = 5$$

$$x = 6$$

$$3(5x - 2) + 4x = 9x + 6 - 2x$$

$$x = 1$$

$$5(2x + 3) = 3(4x + 1) - 2(3x + 2)$$

$$x = -4$$