

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

Date: \_\_\_\_\_ Period: \_\_\_\_\_

**Math 7 Blizzard Bag #3**

**Directions:** Read each question carefully. You must show your work for each to receive full credit.

**Algebraic Equations and Inequalities**

**Tell whether each pair of equations are equivalent.**

1.  $x - 7 = 1$  and  $x = 6$

2.  $0.2x = 0.6$  and  $3x + 1 = 10$

**Solve each equation.**

3.  $11 + 4k = 7$

5.  $5p + \frac{2}{15} = \frac{3}{5} + \frac{4}{5}p$

4.  $\frac{8}{9}(4x - 3) = \frac{2}{3}$

6.  $7(x + 5) - 3x = x - 7$

**Solve each inequality. Then graph each solution set on a number line.**

7.  $8x - 7 > 9$

9.  $1.8(x - 5) \geq 0.2(x - 13)$



8.  $6 + \frac{2}{5}y \leq \frac{1}{3}y + 6\frac{1}{3}$

10.  $2(3 - r) + 4(1 + 3r) > -2(3 - 7r)$

