

Linear Inequalities

Solve each of the following inequalities. Graph your solution set on the number line. Write your set in interval notation.

1. $\frac{1}{3}x > 4$

2. $-7x \geq 35$

3. $\frac{-2}{3}x < -8$

4. $-20 \geq 4x$

5. $-2x - 5 \leq 15$

6. $-20 > 50 - 30y$

7. $2(3y + 1) \leq -10$

8. $3(2y - 4) > 0$

9. $2 - 3(2x - 4) \leq 4x - 2(1 - 3x)$

10. $\frac{2}{3}x - \frac{5}{8} \geq \frac{3}{4}x + 1$

SOLUTIONS

1. $(12, \infty)$

2. $(-\infty, -5]$

3. $(12, \infty)$

4. $(-\infty, -5]$

5. $[-10, \infty)$

6. $(7/3, \infty)$

7. $(-\infty, -2]$

8. $(2, \infty)$

9. $[1, \infty)$

10. $(-\infty, -39/2]$