

## Math Worksheet 6 – LINEAR INEQUALITIES

For calculating equations and inequalities we use equivalent and non-equivalent algebraic operations see worksheet 5.

### IMPORTANT

**When multiplying or dividing the inequality by negative number, you must reverse the inequality sign.**

### EXERCISES:

1.  $x < 0$

2.  $x \leq 4$

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

4.  $2(x-3) < x-1$

5.  $\frac{4x}{3} \leq \frac{2}{3} + x$

6.  $2 - \frac{x+2}{3} > x - \frac{x+3}{3}$

7.  $6x+1 > 2(x-5)-1$

8.  $0.x > 3$

9.  $0.x \leq 3$

10.  $0.x \geq 0$

11.  $0.x < -2$

12.  $(x-1)^2 - (x+1)^2 < 8$

13.  $\frac{4x-7}{2} - \frac{x-4}{6} \geq 2x-3$

14.  $5 \leq b+5 < 9$

15.  $-6 \leq -2n \leq 2$

16.  $-3 < r+3 \leq 5$

17.  $-64 < 6b-4 < -22$

18.  $-17n-12 < 13n-12 \leq -8+9n$