



Topic 5: Linear Inequalities in One Variable

Questions 1 – 14 Determine the solution set for the following inequalities. *Note: Express final answer in interval notation. Use “inf” for infinity and “-inf” for negative infinity.*

1. $x - 5 < -12$

2. $x + 3 \geq 11$

3. $5x > 5$

4. $\frac{2x}{7} \geq 14$

5. $\frac{1}{4}x \leq 2$

6. $7x + 39 < 14$

7. $-6x + 17 < 20$

8. $-2x - 15 \geq 5 - 3x$

9. $18 - 6x > -5x - 7$

10. $-3(x + 3) > 12$

11. $5(x - 9) \leq -50$

12. $2 - 2x > 4(2 - 6x)$

13. $\frac{3x - 7}{7} < 6$

14. $\frac{-2x + 7}{-5} \geq 6$