Solving and Graphing Inequalities

Solve and graph the inequality. Then write the answer in interval notation.

1. $-4x < 20$

2. $\dfrac{x}{3} \leq 5$

3. $6x > -30$

4. $x + 5 > -2$

5. $x - 5 < -7$

6. $\dfrac{x}{-4} \geq 5$

7. $3x + 12 \geq 21$

8. $7 < \dfrac{x}{-4}$

9. $36 \geq -9x$

10. $6x - 5 > -17$

Solve and graph the inequality. Then write in interval notation

1. $5x + 3 < 2x + 15$

2. $2(3 + 3x) > 2x + 14$

3. $2(-3x - 2) + 4x < 8$

4. $-11x - 2 + 3x \leq 3x + 14$

5. $3x + 6 \leq -5(x + 2)$

6. $-4x - 4 + 6x \geq 6 - 3(x + 5)$

7. $\dfrac{-x}{3} - 10 > 5$

8. $\dfrac{2}{5}(x - 3) > 4$

Solve and graph the inequality. Then write in interval notation

1. $5x + 3 < -2$ or $3 + 3x > 2$

2. $-3x + 5 \geq -4$ or $3 + -3x < -12$

3. $-2 \leq 3x + 5 \leq 14$

4. $14 > -3x + 5 > -2$