

PreAP Precalculus
Solving Linear and Quadratic Inequalities
Fall 2018

Name _____

Date _____ Per _____

Solve the following equations. Express all answers in interval notation.

1. $5x - 14 < 3x + 8$
2. $2(x + 4) - 5(x - 3) \geq 32$
3. $\frac{2}{3}(2x - 5) > 3x - 6$
4. $3n - 40 \leq \frac{1}{2}n + 35$
5. $5(x - 4) - 1 > -7x + 3$
6. $3(x + 2) - 4x - 7 > -3(2x - 5)$
7. $3(x + 2) - (x + 17) \leq 2x - 29$
8. $\frac{3}{2}\left(x - \frac{7}{5}\right) - 6\left(\frac{2}{5}x - \frac{14}{3}\right) \leq 12x - 1$
9. $\frac{2}{3} - \frac{3}{5}\left(\frac{1}{2}n - 2\right) < \frac{2}{5}\left(\frac{3}{4}n - 4\right)$
10. $12 - 5(4 - 3x) + 5x > 17x - 53$
11. $2x + 4(x + 1) \geq 6\left(x + \frac{2}{3}\right)$
12. $x^2 - 8x + 15 < 0$
13. $12x^2 - x - 35 \geq 0$
14. $2x^2 - 3x - 8 \leq 0$
15. $3x^2 + x + 12 < 0$
16. $2x^2 + 2x + 15 \geq 0$

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____