

Name: \_\_\_\_\_

### 6.3 Solving Quadratic Inequalities

Solve the following.

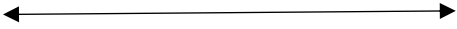
Write interval

1.  $x^2 + 4x + 3 \leq 0$



1. \_\_\_\_\_

2.  $5x^2 + 10 \geq 27x$



2. \_\_\_\_\_

3.  $9x^2 + 6x + 1 \leq 0$



3. \_\_\_\_\_

4.  $9x^2 + 31x \leq -12$



4. \_\_\_\_\_

5.  $4x^2 + 4x + 1 > 0$



5. \_\_\_\_\_

6.  $4x^2 < 9$



6. \_\_\_\_\_

7.  $5 - 2x^2 \geq -3x$



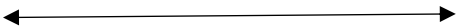
7. \_\_\_\_\_

8.  $x^2 - 3x > 18$



8. \_\_\_\_\_

9.  $5x^2 + 17x + 6 < 0$



9. \_\_\_\_\_

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### 6.3 Solving Quadratic Inequalities

10.  $x^2 + x - 2 > 0$



10. \_\_\_\_\_

11.  $s^2 - 14s + 42 < 0$



11. \_\_\_\_\_

12.  $y^2 - 8y + 16 > 0$



12. \_\_\_\_\_

**Solve. (Any way other than graphing)**

13.  $x^2 - 7x + 15 = 0$

14.  $3m^2 - 2m + 5 = 4$

15.  $q^2 - 14 = 2$

**Simplify.**

16.  $-2\sqrt{250x^3y^4z}$

17.  $2\sqrt{5} - \sqrt{45} - \sqrt{40}$

18.  $4\sqrt{12}(2\sqrt{2} - \sqrt{5})$

**Write an equation using the following transformations.**

19. Stretch 3, Left 7, Down 4, Reflection

20. Shrink  $\frac{3}{4}$ , Right 2, up 5