

Name: _____ Lowest Acceptable Grade: _____

Simplify

1. $5y(y + 3) - 2(y + 3)$

2. $y^2(y - 4) + 5(4 - y)$

3. $7c^2(c + 9) + 2(c + 9)$

Factor and Simplify

4. $c^3 + 7c^2 + 5c + 35$

5. $36a^4 - 4a^2$

6. $6g^3 - 24g^2 + 24g$

Find the Axis of Symmetry and the Vertex (and sketch #9)

7. $y = x^2 - 6x + 11$

8. $y = 4x^2 + 7$

9. $y = -x^2 + 8x + 9$

Solve

10. $x^2 - 2x + 3 = 0$

11. $4x^2 - x - 18 = 0$

12. $-2n^2 - 5n + 16 = 0$

13. $3x - 2y = 8$
 $.5x + y = 17$

14. $11y - 3x = 18$
 $-3x = -16y + 33$

15. $-5x + 3y = 51$
 $y = 10x - 8$

16. $2x + y = 9$
 $4x - y = -15$

17. $5(a - 2)^2 = 70$

18. $a = 8, b = 12,$
find the hypotenuse

19. $\sqrt{7-2x} = \sqrt{9-x}$

Simplify

20. $\sqrt{\frac{4}{52}}$