Algebra 1 Name_____ ID: 1



# Ch 9 A Review: Solving Quadratic Equations

Period____

**Solve each equation by taking square roots.**

1) $36r^2 + 3 = 103$

2) $6m^2 - 5 = 481$

3) $3n^2 - 3 = 0$

4) $-5 + 81x^2 = 59$

5) $10x^2 - 2 = 78$

6) $2n^2 + 4 = 52$

7) $8a^2 - 1 = 159$

8) $9x^2 + 1 = 838$

9) $(4k + 3)^2 + 5 = 21$

10) $3(5x + 2)^2 = 75$

11) $3(2n - 8)^2 - 4 = 20$

12) $-2(3r + 4)^2 + 4 = -52$

**Find the value of c that completes the square. Then factor.**

13) $x^2 - 12x + c$

14) $x^2 + 30x + c$

  

**Solve each equation by completing the square. You must show every step to earn full credit.**

15) $p^2 - 8p - 16 = 9$

16) $v^2 - 18v + 83 = 6$

17) $r^2 - 12r - 67 = 5$

18) $3x^2 + 12x - 43 = -7$

**Solve each equation with the quadratic formula.**

19) $3n^2 - 4n - 7 = 0$

20) $n^2 - 7n + 8 = 0$

21) $7b^2 + 3b - 11 = -2$

22) $a^2 - a - 26 = 4$

**Find the discriminant of each quadratic equation then state the number of solutions.**

23) $10n^2 + 8n + 11 = 9$

24) $3x^2 + 9x - 4 = -10$