Secondary Math 2 HONORS Name_____

Unit 2 Solving Quadratics Review

Date_____ Period____

Explain each property/theorem. Give an example to aid your explanation.

1) Zero Product Property

2) Fundamental Theorem of Algebra

Describe when to use each strategy to solve a quadratic.

3) Factoring

4) Taking a square root

5) Complete the square

6) Quadratic formula

Find each product.

7) $(7n+3)(7n+4)$

8) $(2n+3)(3n+4)$

9) $(2v + 4)^2$

10) $(8p - 4)^2$

Factor each completely.

11) $m^2 + m - 2$

12) $2m^3 + 34m^2 + 140m$

13) $25r^2 - 40r + 16$

14) $16k^2 - 9$

15) $v^2 - 1$

Solve each equation by factoring.

16) $p^2 - 7p + 9 = 3$

17) $2m^2 + 8m - 8 = -8$

18) $3m^2 - 21m + 22 = 4$

19) $90x^2 = 36 + 78x$

20) $5v^2 + 27v = 56$

21) $10x^2 + 15x = 100$

Solve each equation by taking square roots.

22) $3k^2 + 7 = -40$

23) $7 - 7n^2 = -644$

24) $4k^2 - 2 = -55$

25) $-(x - 3)^2 - 7 = 12$

26) $6(x + 4)^2 + 8 = -10$

Solve each equation by completing the square.

27) $x^2 + 18x + 91 = 6$

28) $k^2 + 4k - 100 = -4$

29) $n^2 + 10n + 28 = 7$

30) $r^2 - 8r + 16 = -4$

Solve each equation with the quadratic formula.

31) $12a^2 + 5 = -12a$

32) $7v^2 = 7 + 9v$

33) $10v^2 - 11v = 2$

34) $11m^2 = -9 - 12m$