Honors Algebra 2 Name_____ ID: 1

Summer Assignment

Date_____ Period____

This entire packet is to be completed by the first day of class when it will be checked for a completion grade. You will be tested on the skills from this packet during our 2nd class of the year. Feel free to use the internet to refresh your memory of any of the skills you may have forgotten. All work must be done on a separate piece of paper which you must attach and answers alone can be placed on this sheet. This is a review of the quadratic skills learned in Algebra 1. Factoring is a fundamental skill that you should have MASTERED before taking Honors Algebra 2.

Factor each completely.

1) $x^2 + 10x + 25$

2) $5n^2 - 65n + 200$

3) $3k^2 - 27$

4) $b^2 + 2b - 80$

5) $r^2 + 5r - 36$

6) $6n^2 - 90n + 336$

7) $5x^2 + 49x + 36$

8) $30p^2 - 36p$

9) $21n^2 - 93n + 36$

10) $3n^2 + 8n$

11) $18m^2 - 156m + 288$

12) $7x^2 - 12x - 27$

13) $4p^2 + 5p + 1$

14) $9n^2 + 34n + 21$

15) $10x^2 + 21x - 10$

16) $9n^2 + 45n + 56$

17) $10x^2 + 93x + 27$

18) $8b^2 - 18b$

19) $24x^2 - 186x + 252$

20) $27b^2 - 159b - 210$

21) $9x^2 + 9x - 10$

22) $8v^2 + 73v + 72$

Factor each completely.

23) $5r^2 - 50r + 125$

24) $2k^2 + 12k + 18$

25) $4a^2 - 36$

26) $2x^2 - 4x + 2$

Solve each equation by completing the square. No calculator should be used. Answers should be left in simplified radical form.

27) $m^2 + 14m + 4 = 7$

28) $a^2 - 18a + 21 = -9$

29) $x^2 - 10x - 18 = -7$

30) $8x^2 + 16x - 30 = -6$

31) $3v^2 + 6v - 39 = -8$

32) $2m^2 + 8m - 33 = 9$

Solve each equation with the quadratic formula. No calculator should be used. Answers should be left in simplified radical form.

33) $6n^2 = 9 - 3n$

34) $3r^2 - 20 = 12r$

35) $12x^2 = -7x + 17$

36) $-9n^2 - 1 = -8n$

37) $-n^2 = 21 - 10n$

38) $-a^2 + 143 = 2a$

Solve each equation by taking square roots. No calculator should be used. Answers should be left in simplified radical form.

39) $-4 - 8n^2 = -652$

40) $7p^2 + 6 = 538$

41) $4p^2 - 10 = 134$

42) $9x^2 - 3 = 627$

43) $3n^2 - 3 = 231$

44) $8m^2 - 9 = 383$