Algebra 2 Name_____ ID: 1

Unit 2 Test Review #2

Date_____ Period____

Name each polynomial by degree and number of terms.

1) $-9x^7 + 9x^6$

2) -1

3) $-x^5$

4) $-5 - m^5 - 7m^6 + 3m^3$

5) $4n$

6) $x^5 + 4x^7 + 10x^3$

Simplify each expression.

7) $(8x^3 + x + 3x^4) - (8x^4 + x + 7)$

8) $(3 + 2a^2 + 7a^4) - (4a + 4a^2 - 8)$

9) $(4 - 3v^3 - 8v^4) - (5 - 3v^4 - 7v^3)$

10) $(2v^4 - v^3 - 6v) + (2v - 5v^3 - 3v^4)$

11) $(2r^4 + 5r + 6) - (7 - 6r - 6r^4) - (4r - 8r^4)$

12) $(3k^3 - 4 + 4k^4) + (2k^3 + 7 + 3k^2) - (3k^2 - 5k^4)$

Find each product.

13) $(3b - 8)(5b + 5)$

14) $(2x + 6)(3x - 7)$

15) $(-5u - 10v)^2$

16) $(4m^2 - 8n)^2$

Use Long Division to Divide.

17) $(6r^3 - 43r^2 - 43r + 19) \div (r - 8)$

18) $(n^3 - 11n^2 + 9n + 6) \div (n - 10)$

Divide Using Synthetic Divisoin.

19) $(3p^3 + 17p^2 - 20p + 66) \div (p + 7)$

20) $(4r^3 - 14r^2 - 28r - 14) \div (r - 5)$

Expand completely.

21) $(4y - 1)^4$

22) $(3v - 1)^4$

23) $(u - 2)^5$

24) $(2y + 1)^5$

Find each coefficient described.

25) Coefficient of n^2m in expansion of $(5n - m)^3$

26) Coefficient of x in expansion of $(x - 2)^4$

Find each term described.

27) 2nd term in expansion of $(4u + 1)^3$

28) 3rd term in expansion of $(x - 2)^4$