

Unit 5 Test

Date _____ Period _____

Name each polynomial by degree and number of terms.

1) $-10r^6 + 6r^5 + 4r^2$

2) -3

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

Simplify each sum.

4) $(4 - 5k^4) + (6k^3 + 6 - 4k^4)$

5) $(5 - 7x) + (x^4 - 7x + 8)$

6) $(2n^2 + 1 + n^3) + (7n^4 - 2n^2 + 3n^3)$

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

Simplify each difference.

8) $(3x^2 + 2x^2y) - (2x^2y + 5y^2 + 6x^2)$

9) $(3k^2 + 1) - (8k^2 + 7 + 8k^3)$

10) $(3x^3y^2 - 8y^2 + 8x^4y) - (4x^4y + 3x^3y^2 + 8y^2)$

$$11) (7a^2b + ab^3 + 4a^4) - (ab^3 + a^4 + a^2b^3)$$

Find each product.

$$12) 2n(3n + 2)$$

$$13) 4x(3x + 5)$$

$$14) 2(p^2 + 5p - 1)$$

$$15) 8a^2(6a^2 - 6a + 5)$$

$$16) (6k - 1)(5k + 3)$$

$$17) (2p + 5)(p - 1)$$

$$18) (3m + 1)(6m - 5)$$

$$19) (8m + 6)(5m + 5)$$

$$20) (a - 3)^2$$

$$21) (4n - 6)^2$$

$$22) (7v - 5)(v^2 - 4v - 1)$$

$$23) (v - 1)(7v^2 - 4v - 2)$$

Evaluate each using the values given.

$$24) c - b^3; \text{ use } b = 1, \text{ and } c = 4$$

$$25) (y + 6z) \div 3; \text{ use } y = 3, \text{ and } z = 6$$