

UNIT 7 DAY 8 – HOMEWORK

Simplify each expression.

$$1) (5v^3 + 8) - (6v + 1)$$

$$5v^3 - 6v + 7$$

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

$$9a^3 - 9$$

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

$$-2x^2 + x + 10$$

$$4) (8k + 3k^2 - 3) + (2 - 4k^2 - 5k^4)$$

$$-5k^4 - k^2 + 8k - 1$$

$$5) (6 + 2n + 2n^2) + (5n - 8 + 2n^2)$$

$$4n^2 + 7n - 2$$

$$6) (4b^2 + 8b^3 + 3) - (6b^2 - 7b^3 + 2)$$

$$15b^3 - 2b^2 + 1$$

Find each product.

$$7) 5(6b + 3)$$

$$30b + 15$$

$$8) 6(2m + 4)$$

$$12m + 24$$

$$9) 2(-8n^2 + 5n + 4)$$

$$-16n^2 + 10n + 8$$

$$10) -5(-5b^2 - 3b - 8)$$

$$25b^2 + 15b + 40$$

$$11) (-3p + 1)(3p + 6)$$

$$-9p^2 - 15p + 6$$

$$12) (6v + 4)(-v + 6)$$

$$-6v^2 + 32v + 24$$

$$13) (b + 4)(6b^2 - 6b - 3)$$

$$6b^3 + 18b^2 - 27b - 12$$

$$14) (7v - 6)(7v^2 - v + 4)$$

$$49v^3 - 49v^2 + 34v - 24$$

Name each polynomial by degree and number of terms.

$$15) 8$$

constant monomial

$$16) 7$$

constant monomial

$$17) -5 + 5a^3$$

cubic binomial

$$18) 3m^4 + 8m^3 - 4 - 8m$$

quartic polynomial with four terms

$$19) 2n$$

linear monomial

$$20) 5a$$

linear monomial