

DO NOW

Simplify:

$$4(5x^2 + 3x - 1)$$

$$4(5x^2) + 4(3x) + 4(-1)$$

$$20x^2 + 12x - 4$$

Page 1

6.3 Multiplying A Polynomial by a Monomial

*** Distribute

Examples:

$$1. m^4(2m^2 - 5m + 1)$$

$$m^4(2m^2) + m^4(-5m) + m^4(1)$$

$$2m^6 - 5m^5 + m^4$$

$$2. 2x^3(3x^2 - 4x + 7)$$

$$6x^5 - 8x^4 + 14x^3$$

Page 2

$$3. 3r^2s(6r^2 + 4rs - 10s^2)$$

$$3r^2s(6r^2) + 3r^2s(4rs) + 3r^2s(-10s^2)$$

$$18r^4s + 12r^3s^2 - 30r^2s^3$$

$$4. -3ab^2\left(\frac{1}{3}a^3b - 4a^2b + 2b^3\right)$$

$$-3ab^2\left(\frac{1}{3}a^3b\right) - 3ab^2(-4a^2b) - 3ab^2(2b^3)$$

$$-a^4b^3 + 12a^3b^3 - 6ab^5$$

Page 3

HOMEWORK

pg 220; 1 - 29

Page 4