

Warm-up:

Simplify each expression.

$$2x^2y^3(3x^6y^2)$$

$$6x^8y^5$$

$$-5ab(4a^8b^3)$$

$$-20a^9b^4$$

Algebra 1

Unit 4, Day 5

Multiplying a Polynomial by a Monomial

HW: Page 13 in Packet

Multiplying a Polynomial by a Monomial

Find each product.

$$x(6x + x^3)$$

$$6x^2 + x^4$$

$$-3ab(6a - 4b^3)$$

$$-18a^2b + 12ab^4$$

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

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

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

$$8a^3b^4 - 4a^3b^3 + 6a^4b^6$$

You Try!!!

Find each product.

$$c(-2c + c^4)$$

$$-2c^2 + c^5$$

$$2yz(-5z + 6y^5)$$

$$-10yz^2 + 12y^6z$$

$$-6x(x^4 - x^2 + x^3)$$

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

$$a^6b^2(-3ab + a + 2a^5b^3)$$

$$-3a^7b^3 + a^7b^2 + 2a^{11}b^5$$

Classwork

Complete page 12 in the packet. We will go over the answers at the end of class.



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

2) $-2xy(2y+4x^2)$
 $-4xy^2-8x^2y$

3) $x(4x^2+3x+2)$
 $4x^3+3x^2+2x$

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

5) $-2g(g^2-2g+2)$
 $-2g^3+4g^2-4g$

6) $-4x(2x^3-2x+3)$
 $-8x^4+8x^2-12x$

7) $-3x^2(4x^2+6x-8)$
 $-12x^4-18x^3+24x^2$

8) $-4cd(10+3x)$
 $-40cd-12cdx$

9) $3y(-4x-6x^3-2y)$
 $-12xy-18x^3y-6y^2$

10) $-3x(-4x^3-2x-1)$
 $12x^4+6x^2+3x$

11) $2x^2(3x^2-2x-5)$
 $6x^4-4x^3-10x^2$

12) $2x^2y^2(3xy+2y+5x)$
 $6x^3y^3+4x^2y^3+10x^3y^2$

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