Name:		Date:
Topic:		Class:

Main Ideas/Questions	Notes/Examples

Monomial

Ⓧ

Polynomial

To multiply a monomial and a polynomial, simply **distribute** the monomial to the polynomial. For exponents, recall the product rule.

Product Rule:

Example 1: $x(x + 4)$

Example 2: $5m^3(3m^2 - m - 7)$

You Try! ➡

Directions: Find each product. Final answers must be in standard form.

1. $k(k - 9)$

2. $9a(a + 1)$

3. $-6p(p^4 - 8)$

4. $3c^5(-2c - 5)$

5. $-4g^2(2g + 7)$

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

7. $-3n(n^2 - 2n + 8)$

8. $-2x^4(6x^2 - 12x + 18)$

9. $p^2q^3(p^5q^2 - pq)$

10. $3xy(x^2 + xy + y^2)$

11. $5r^2s^2(-2r^2 + 3rs - 4s^2)$

12. $3ab(4a^2 - 7b^3)$

13. $-7c^3d^2(9c^2d^2 - 4cd^5)$

14. $10m^4n(-2mn^3 + 3n)$

Directions: Distribute, then simplify the remaining expression. Final answers must be in standard form.

15. $-2x(3x - 4) + 7x$

16. $5w(-7w + 3) - 2w(13 - 9w^2)$