Warm up

1) $(3v + 6) - (4 + 2v)$ $- 4 - 2v$

$\boxed{v+2}$

$8a$

2) $(6a + 2) + (2a - 2)$

$8a$

2.2 Multiplying Monomials

Objective: Students will be able define a monomial, binomial, and trinomial and multiply monomials.
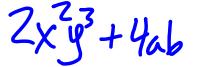
Monomial: a polynomial with 1 term

examples: $f(x) = 4x$, $g(x) = x^2$

Binomial: a polynomial with 2 term

$$f(x) = x - 1, \quad g(x) = x^2 + 2$$

Trinomial: a polynomial with 3 terms

$$f(x) = x^2 - x + 5$$

$$2x^2 y^3 + 4ab$$

$$x + y + 1$$

Multiplication: Simplify by distributing the monomial with the binomial.

12) $3(x + 5)$

$$3x + 15$$

13) $2y(y - 2)$

$$2y \cdot y - 2y \cdot 2$$

$$2y^2 - 4y$$

Simplify by distributing the <u>monomial</u> with the <u>trinomial</u>. **Draw arrows** to indicate that all terms have been distributed.

$(5)(3x^2 + 2x + 6)$ $= 5 \bullet 3x^2 + 5 \bullet 2x + 5 \bullet 6$ $= 15x^2 + 10x + 30$

$8a(-7a^2 - 7ab + 5b^2)$

$-4x(5x^2 - xy + 4y^2)$

$-20x^3 + 4x^2y - 16xy^2$

$-56a^3 - 56a^2b + 40ab^2$

Simplify

$$5u(3u^2 + 4uv + 6v^2)$$

$$15u^3 + 20u^2v + 30uv^2$$

$$4b^2(4a + 2b)$$

$$16b^2a + 8b^3$$