

Warm up

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

Handwritten annotations in blue ink: a circle around the 1 in the second term, a line connecting the 1 to the 4, and the expression $-4 - 2v$ written to the right. Below the 1 is a circled $v+2$ with a minus sign, and below that is a circled 0.

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

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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

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

Trinomial: a polynomial with 3 terms

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

$x + y + 1$

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

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 monomial with the trinomial. Draw arrows to indicate that all terms have been distributed.

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

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

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

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

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

Simplify

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

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

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

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