

LESSON

4-3

Subtracting Polynomial Expressions**Reteach**

To subtract polynomials, you must remember to add the opposites.

Find the opposite of $(5m^3 - m + 4)$.

$$(5m^3 - m + 4)$$

$$-(5m^3 - m + 4)$$

Write the opposite of the polynomial.

$$-5m^3 + m - 4$$

Write the opposite of each term in the polynomial.

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

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

Rewrite subtraction as addition of the opposite.

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

Identify like terms.

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

Rearrange terms so that like terms are together.

$$2x^3 + x^2 + 7$$

Combine like terms.

Subtract $(6y^4 + 3y^2 - 7) - (2y^4 - y^2 + 5)$.

$$(6y^4 + 3y^2 - 7) + (-2y^4 + y^2 - 5)$$

Rewrite subtraction as addition of the opposite.

$$(6y^4 + 3y^2 - 7) + (-2y^4 + y^2 - 5)$$

Identify like terms.

$$(6y^4 - 2y^4) + (3y^2 + y^2) + (-7 - 5)$$

Rearrange terms so that like terms are together.

$$4y^4 + 4y^2 - 12$$

Combine like terms.

Subtract.

1. $(9x^3 - 5x) - (3x)$

2. $(6t^4 + 3) - (-2t^4 + 2)$

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

4. $(t^3 - 2t) - (t^2 + 2t + 6)$

5. $(4c^5 + 8c^2 - 2c - 2) - (c^3 - 2c + 5)$
