

9.1 Key Concepts 3 Adding or Subtracting Like Terms Worked Example

Example: Simplify the expression by adding or subtracting like terms:

$$8cd^2 - 2c^2d + 4c^2d^2 - 3cd - 6cd^2 + 5cd$$

Solution: Like terms have exactly the same variables raised to exactly the same exponents. In this expression, there are two pairs of like terms, $8cd^2 - 6cd^2$ and $3cd + 5cd$.

$$8cd^2 - 2c^2d + 4c^2d^2 - 3cd - 6cd^2 + 5cd = 2cd^2 - 2c^2d + 4c^2d^2 + 2cd$$

Practice:

1. Simplify the expression by adding or subtracting like terms.

$$2x + 3y - 4x + 5y - 6x^2$$

2. Simplify the expression by adding or subtracting like terms.

$$5m^2 - 2m + 3 - 2m^2 + 7m - 6$$

Answers: 1. $-2x + 8y - 6x^2$ 2. $3m^2 + 5m - 3$