

Name: _____

Date: _____

7.1 Adding and Subtracting Polynomials PART 2

To add or subtract polynomials, collect _____.

_____ are terms with the same variable and _____.

EXAMPLE 4 Adding Polynomials

Find the sum.

a. $(2x^3 - 5x^2 + x) + (2x^2 + x^3 - 1)$ b. $(3x^2 + x - 6) + (x^2 + 4x + 10)$

EXAMPLE 5 Subtracting Polynomials

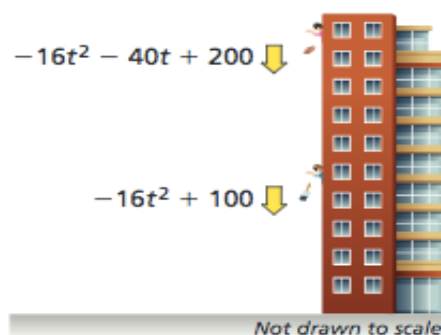
Find the difference.

a. $(4n^2 + 5) - (-2n^2 + 2n - 4)$ b. $(4x^2 - 3x + 5) - (3x^2 - x - 8)$

Solving Real-Life Problems

EXAMPLE 6 Solving a Real-Life Problem

A penny is thrown straight down from a height of 200 feet. At the same time, a paintbrush is dropped from a height of 100 feet. The polynomials represent the heights (in feet) of the objects after t seconds.



- Write a polynomial that represents the distance between the penny and the paintbrush after t seconds.
- Interpret the coefficients of the polynomial in part (a).