

1.6 Adding and Subtracting Polynomials

(chapter 3.6 in text)

Learning Goal: you will extend your understanding of collecting like terms by simplifying expressions made up of polynomials that are added together or subtracted from one another.

Adding and Subtracting Polynomials

$(3x + 4) + (6x - 12)$ this expression is made up of two binomials, added together

To add polynomials, remove brackets and collect like terms:

$$(3x + 4) + (6x - 12)$$

=

$(5x + 3) - (7x - 2)$ this expression is made up of two binomials, one subtracted from the other

To subtract a polynomial, add the opposite polynomial:

$$(5x + 3) - (7x - 2)$$

$$= (5x + 3) + (-7x + 2)$$

=

Ex. Simplify

a) $(4x + 3) + (7x + 2)$

b) $(2p - 2) + (4p - 7)$

c) $(3y + 5) - (7y - 4)$

d) $(a^2 - 2a + 1) - (-a^2 - 2a - 5)$

The sum of the perimeters of two shapes is represented by $13x+4y$.

The perimeter of one shape is represented by $4x-2y$.

What is the perimeter of the other shape?

HW Pg 157 #1, 2, 4, 5, 6, 9