Lesson 7: Integers of Quadratics

- Let's explore operations with integers

7.1: Math Talk: Missing Values

Mentally solve each equation for a.

$7 \cdot a = 49$

$7 \cdot a = \text{-}49$

$\text{-}7 \cdot a = 49$

$\text{-}7 \cdot a = \text{-}49x$

7.2: Finding Pairs that Work

For each question, find a pair of integers with the given product and sum.

1. product: 6, sum: 5

2. product: 6, sum: 7

3. product: 4, sum: -5

4. product: -1, sum: 0

5. product: -6, sum: 1

6. product: -12, sum: -1

7. product: -12, sum: 4

7.3: Factor Expansion

For each question:

- rewrite the expression in standard form

- compare your question and solution with your partner

- be prepared to explain anything you notice in the comparison

Partner A:

    1. $(x-1)(x-2)$

    2. $(x-1)(x+2)$

    3. $(x+4)(x-4)$

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

    5. $(x-2)(x-3)$

    6. $(x-2)(x+7)$

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

    8. $(4-x)(1-x)$

Partner B:

    1. $(x+1)(x+2)$

    2. $(x+1)(x-2)$

    3. $(x-4)(x+4)$

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

    5. $(2-x)(x-3)$

    6. $(x+7)(x-2)$

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

    8. $(x-4)(x-1)$