



# Integers of Quadratics

Let's explore operations with integers.

## 7.1 Math Talk: Missing Values

Mentally solve each equation for  $a$ .

- $7 \cdot a = 49$

- $7 \cdot a = -49$

- $-7 \cdot a = 49$

- $-7 \cdot a = -49x$

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

