

Unit 7 Lesson 7: Integers of Quadratics

1 Math Talk: Missing Values (Warm up)

Student Task Statement

Mentally solve each equation for a .

$$7 \cdot a = 49$$

$$7 \cdot a = -49$$

$$-7 \cdot a = 49$$

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

2 Finding Pairs that Work

Student Task Statement

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

3 Factor Expansion

Student Task Statement

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