## Lesson 7: Integers of Quadratics

* Let’s explore operations with integers

### 7.1: Math Talk: Missing Values

Mentally solve each equation for $a$.

$7⋅a=49$

$7⋅a=-49$

$-7⋅a=49$

$-7⋅a=-49x$

### 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. $(x−4)(x−1)$



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