Common Pre-Algebra Mistakes
Example: Simplifying a Fraction

The Goal

Simplify the expression:

$$\frac{(2)(-1) - (1)(4)}{(-1)^2}$$

The Mistake

What the student wrote:

$$\frac{(2)(-1) - (1)(4)}{(-1)^2} = 2$$

With a step added to show what it appears was computed in the student's head, find the mistake:

$$\frac{(2)(-1) - (1)(4)}{(-1)^2} = \frac{-2+4}{1} = 2$$

Need a hint? Look carefully at the red part of the expression:

$$\frac{(2)(-1) - (1)(4)}{(-1)^2} = \frac{-2{\color{red}+}4}{1} = 2$$

The Correction

$$\frac{(2)(-1) - (1)(4)}{(-1)^2} = \frac{-2{\color{green}-}4}{1} = -6$$

An Explanation

Use care with signs. A good strategy is to *write down* intermediate steps, which makes you take the time needed to simplify correctly.