



Common algebra mistakes.

8 mistakes students make — and how to fix them.



01 Distributing to only one term

✗ $3(x - 4) = 3x - 4$

✓ $3(x - 4) = 3x - 12$

Fix: Multiply the number outside by *every* term inside.

02 Losing the negative when distributing

✗ $-(x - 5) = -x - 5$

✓ $-(x - 5) = -x + 5$

Fix: A minus sign in front of parentheses changes the sign of every term inside.

03 Squaring a sum term by term

✗ $(x + 3)^2 = x^2 + 9$

✓ $(x + 3)^2 = x^2 + 6x + 9$

Fix: Write it as $(x + 3)(x + 3)$ and multiply it out.

04 Canceling terms instead of factors

✗ $(x + 6) \div 6 = x + 1$

✓ $(x + 6) \div 6 = x/6 + 1$

Fix: You can only cancel something that multiplies the *whole* top and the *whole* bottom.

05 Mixing up -3^2 and $(-3)^2$

✗ $-3^2 = 9$

✓ $-3^2 = -9$, but $(-3)^2 = 9$

Fix: An exponent only applies to what it touches. Without parentheses, the negative waits.

06 Moving a term without undoing it

✗ $x + 7 = 12 \rightarrow x = 12 + 7$

✓ $x + 7 = 12 \rightarrow x = 12 - 7 = 5$

Fix: Undo the operation: subtract 7 from *both* sides.

07 Dividing only part of a side

✗ $2x + 6 = 10 \rightarrow x + 6 = 5$

✓ $2x + 6 = 10 \rightarrow x + 3 = 5$

Fix: When you divide a side, divide *every* term on it.

08 Forgetting to flip the inequality

✗ $-2x > 8 \rightarrow x > -4$

✓ $-2x > 8 \rightarrow x < -4$

Fix: Multiplying or dividing by a negative number reverses the inequality.

The habit that catches all of these: plug your answer back into the original problem and check that both sides match.

InspireTutors by ADRO

WhatsApp +1 (787) 702-8206

inspiretutorsadro@gmail.com