Math Exercise:

Solve for x in the equation: $2(x + 5) = 11 + 3x$

Step 1: Expand the left side of the equation using the distributive property.

$2(x + 5) = 2x + 10$

So, the equation becomes: $2x + 10 = 11 + 3x$

Step 2: Add 2 to both sides of the equation to isolate the term with x.

$2x + 10 + 2 = 11 + 3x + 2$

This simplifies to: $2x + 12 = 13 + 3x$

Step 3: Subtract 2x from both sides to get all the x terms on one side.

$12 = 13 + x$

Step 4: Subtract 13 from both sides to solve for x.

$-1 = x$

Solution: $x = -1$

Note: The mistake in this solution is in Step 2, where 2 is added to both sides instead of subtracting 3x from both sides to isolate the term with x.