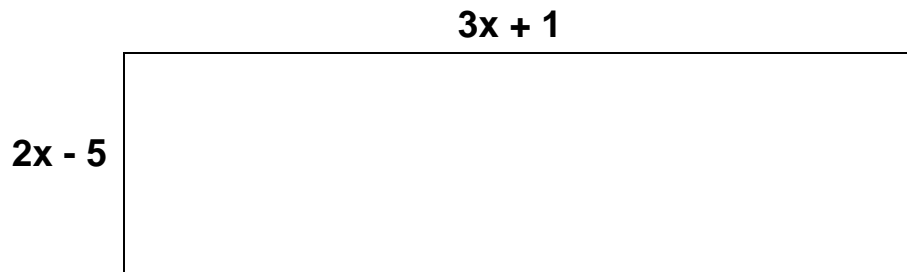


PROBLEM-OF-THE-DAY: ALGEBRA 1**WEEK:** February 11 to February 14**Day:** Thursday

RISD Objective: Given a problem which calls for operations with polynomials, students will add, subtract, multiply, or factor the polynomial according to the context of the problem.

PROBLEM #104

Chris was asked to find a simplified expression that represented the area of the rectangle shown below.



This was the work that Chris showed for the problem:

$$\begin{aligned} &\text{length} \cdot \text{width} \\ &(3x + 1)(2x - 5) \\ &6x^2 - 5 \end{aligned}$$

What mistake did Chris make? What would be the correct work and answer?

MODEL SOLUTION #104

Chris did not use the FOIL method when he multiplied the two binomials. His work should have looked like this:

length x width

$$(3x + 1)(2x - 5)$$

$$6x^2 - 15x + 2x - 5$$

$$6x^2 - 13x - 5$$

So, the correct expression which represented the area should have been-

$$6x^2 - 13x - 5.$$