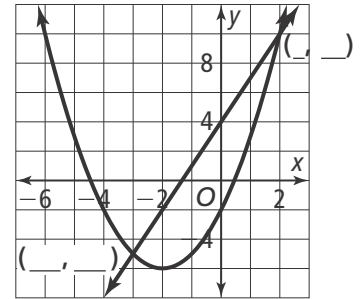## 2-7 Reteach to Build Understanding

Vertex Form of a Quadratic Function

1. Find the solution to the set of equations by graphing and then fill in the blanks for each point of intersection. Then determine the number of solutions.

   What are the solutions?

   Count the number of intersection points. How many solutions are there to the set of equations?

2. Use substitution to find the answer.

Substitute	$(x^2 + 4x - 2) - 3x = 4$
Remove parentheses	$x^2 + \ x - 2 - 3x =$
Simplify both sides.	$x^2 \quad x - 2 = 4$
Subtract 4 from both sides.	$x^2 + x - 2 - \quad = 4 -$
Simplify.	$x^2 + x - \quad = 0$
Factor	$(x + \ )(x - \ )$
Find the values of x.	$x = \quad$ and $x =$
Input each value into one equation to solve for y.	1) $y = (-3)^2 + 4(-3) - 2$ $\quad y = 9 - \quad - 2$ $\quad y =$ 2) $y = (\ )^2 + 4(\ ) - 2$ $\quad y = \quad + \quad - 2$ $\quad y =$
Write them as solution sets.	$(\ ,\ )$ and $(\ ,\ )$

3. Avery was asked to graph and shade the system of equations in order to solve. What was Avery's mistake?