Name:

Date:

Lesson 4.1.1 (Part 2) Homework

* **4-7.** Make an *x* → *y* table for the rule *y* = *x*2 − 2*x*.
	1. Plot and connect the points on a complete graph.
	2. Does your graph look like a full parabola? If not, add more points to your table and graph to complete the picture.

**4-8.** THE GAME SHOW

**Susan had an incredible streak of good fortune as a guest on an exciting game show called “The Math Is Right.” She amassed winnings of $12,500, a sports car, two round-trip airline tickets, and five pieces of furniture.**

In an amazing finish, Susan then landed on a “Double Your Prize” square and answered the corresponding math question correctly. She instantly became the show’s biggest winner ever, earning twice the amounts of all her previous prizes.

A week later, $25,000, a sports car, four round-trip airline tickets, and five pieces of furniture arrived at her house. Susan felt cheated. What was wrong?



**4-9.** Write the equation represented by the diagram at right.

* 1. Simplify as much as possible and then solve for *x*.
	2. Check your solution.

**4-10.** Simplify the following expressions by combining like terms.

* 1. *y* + 3*x* − 3 + 2*x*2 + 8*x* − 5*y*
	2. 2*x* + 4*x*2 − 6*x* 2 − 9 + 1 − *x* − 3*x*
	3. 14 + 3*y*2 + 30*y* − 3*y*2 - 14*y* − 14 + 16*y*
	4. −10 + 13*y* − 6*x* + 5*y*2 + 10*y* − 5*y*2

**4-11.** Use your pattern-finding techniques to fill in the missing entries for the table below. Then find a rule for the pattern.

