**Pizza Party**

1. For Raul’s birthday, Jessica invited Raul and some of their friends to a fair. They got a picnic table and she ordered 6 large pizzas. Luckily, she had a coupon for $3 off each pizza. If the bill came to $38.94, what was the price of a large pizza?
	1. What is the unknown in this problem?
	2. What is known about the actual cost of one pizza?
	3. Write an expression for the cost of one pizza.
	4. Write an expression for the cost of all six pizzas.
	5. The total cost for all the pizzas was $38.94. Write an equation that models this situation.
	6. Solve the equation. What was the price of each large pizza *before* the discount?
2. What if Jessica bought small pizzas instead? She decides to buy 7 small pizzas, but she only has four coupons. Each coupon reduces the cost by $2. She bought four small pizzas at the discounted price and paid full price for the other three. If the bill came to $44.50, how much was each small pizza?
3. Write an expression for the cost of the 3 small pizzas that Jessica bought at full price.
4. Write an expression for the cost of the 4 small pizzas that Jessica bought at a discounted price.
5. Write an equation that models this situation.
6. Solve the equation. What was the price of each small pizza *before* the discount?
7. Raul, Jessica, and their friends enjoyed eating the pizza on a rectangular picnic table. The dimensions of the picnic table are presented in the figure below. The perimeter of the rectangular table is 96 in. Find the length of each side.

 3(*x* + 5)

 2(3*x* + 3)

1. Write an equation modeling the perimeter of the rectangle.
2. Solve the equation.
3. List the lengths of each side: Side 1: \_\_\_\_\_\_\_\_\_ Side 2: \_\_\_\_\_\_\_\_\_

 Side 3: \_\_\_\_\_\_\_\_\_ Side 4: \_\_\_\_\_\_\_\_\_

1. Examine your answers in question c. What is this kind of rectangle called?