# Expressing Mathematics

Let's use operations and variables to describe situations.

## 1.1 Notice and Wonder: Party Planning

Kiran is helping his aunt and uncle plan a party. His family has a lot of experience planning parties.

Kiran's uncle is in charge of the furniture. He tells Kiran that he plans to have 1 table for every 4 people and 1 chair per person.

Kiran's aunt is getting plates and paper towels. She plans on buying one plate per person, plus 10 extra plates just in case, and she's going to buy one roll of paper towels for every 10 people.

What do you notice? What do you wonder?

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## 1.2 Feeding Operation

A zookeeper is preparing to care for snakes in an exhibit. For each question, write an expression representing the supplies needed.

1. She needs 4.5 ounces of crickets for each snake. How many ounces of crickets are needed if the number of snakes is:

   a. 10

   b. 6

   c. $x$

2. She needs 1 mouse for each snake, plus 2 extra mice. How many mice are needed if the number of the snakes is:

   a. 10

   b. 6

   c. $x$

3. For every 2 snakes, she needs 1 bowl of water. How many bowls of water are needed if the number of snakes is:

   a. 10

   b. 6

   c. $x$

4. There is 1 male snake, and the rest are female. She needs 1 vitamin pill for every female snake. How many vitamin pills does she need if the number of snakes is:

   a. 10

   b. 6

   c. $x$

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## 1.3 Important Quantities

To understand the situation, what is some information you would like to know? What information is already given?

1. Clare is in charge of getting supplies for a road trip with her two friends and her dog. She has $35 to spend on supplies at the store.

2. Andre wants to surprise his neighbor with a picnic basket of fruit and vegetables from his garden. The basket can hold up to 12 food items.

3. Tyler is packing his bags for vacation.

4. Mai's teacher orders tickets to the local carnival for herself, the entire class, and 2 more chaperones.

5. Jada wants to prepare the fabric for the bridesmaids dresses she is creating for a wedding party.


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