

# Unit 7 Lesson 17: Common Multiples

## 1 Notice and Wonder: Multiples (Warm up)

### Student Task Statement

Circle all the multiples of 4 in this list.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Circle all the multiples of 6 in this list.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

What do you notice? What do you wonder?

## 2 The Florist's Order

### Student Task Statement

A florist can order roses in bunches of 12 and lilies in bunches of 8. Last month she ordered the same number of roses and lilies.

1. If she ordered no more than 100 of each kind of flower, how many bunches of each could she have ordered? Find all the possible combinations.
2. What is the smallest number of bunches of roses that she could have ordered? What about the smallest number of bunches of lilies? Explain your reasoning.

### 3 Least Common Multiple

#### Student Task Statement

The least common multiple of 6 and 8 is 24.

1. What do you think the term "least common multiple" means?
2. Find all of the **multiples** of 10 and 8 that are less than 100. Find the least common multiple of 10 and 8.
3. Find all of the multiples of 7 and 9 that are less than 100. Find the least common multiple of 7 and 9.

## 4 Prizes on Grand Opening Day

### Student Task Statement

Lin's uncle is opening a bakery. On the bakery's grand opening day, he plans to give away prizes to the first 50 customers that enter the shop. Every fifth customer will get a free bagel. Every ninth customer will get a free blueberry muffin. Every 12th customer will get a free slice of carrot cake.

1. Diego is waiting in line and is the 23rd customer. He thinks that he should get farther back in line in order to get a prize. Is he right? If so, how far back should he go to get at least one prize? Explain your reasoning.
2. Jada is the 36th customer.
  - a. Will she get a prize? If so, what prize will she get?
  - b. Is it possible for her to get more than one prize? How do you know? Explain your reasoning.
3. How many prizes total will Lin's uncle give away? Explain your reasoning.