The goal of this lesson is to identify multiples and common multiples, then solve problems.

To begin thinking about multiples, try the following problem:

On Thursday morning, the local radio station held a call-in cost. Every third caller won a T-shirt. Every seventh caller won a baseball cap.

In 50 calls, which callers won a T-shirt? Which callers won a baseball cap? Both prizes?

Using any materials you like to solve this problem, share your answers with another pair of students. Discuss the strategies you used to solve the problem and how the materials helped. What patterns did you notice?

To find the multiples of a number, start at that number and count on by that number. You can use the hundred chart to find the multiples of a number.

The multiples of 4 are: $4,8,12,16,20,24,28,32,36,40, \ldots$
The multiples of 6 are: $6,12,18,24,30,36, \ldots$

| 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 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

Notice that some numbers appear in both lists. They are common multiples of 4 and 6. The least common multiple of 4 and 6 is 12 .The first common multiple is the least common multiple. Each common multiple of 4 and 6 is divisible by both 4 and 6 .

