Unit 5, Lesson 15

# Length Measurements

Let's solve problems about distances and lengths.

Warm-up

## Which Three Go Together: Measurements

Which 3 go together?

A

3 feet

B

$(3 \times 1)$ yards

C

$(2 \times 18)$ inches

D

$(\frac{1}{3} + \frac{1}{3} + \frac{1}{3})$ yard

Activity 1

## Disc Throws

There are 6 students throwing discs on field day. Here is some information about each person's first throw.

| student | distance |
|---|---|
| Han | 17 yards |
| Lin | $51\frac{1}{2}$ feet |
| Clare | $21\frac{1}{3}$ feet |
| Andre | 22 yards 2 feet |
| Elena | |
| Tyler | |

- Elena's disc went 3 times as far as Clare's disc.
- Andre's disc went 4 times as far as Tyler's disc.

1. Complete the table, with Elena and Tyler's distances. Explain or show your reasoning.
2. Who are the top 3 throwers for that round?

   Find out by ordering the students and their distances from longest to shortest.

| rank | student | distance (feet) |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |

Activity 2

## Stone Towers

While on an outing, a group of friends had a stone-stacking contest to see who could build the tallest stone tower.

- Andre's tower is 3 times as tall as Diego's, but Diego didn't build the shortest tower.
- Tyler built the tallest tower at 4 feet and 2 inches.
- One person built a tower that is 39 inches tall.
- Tyler's tower is 5 times as tall as the shortest tower.

1. How tall is each person's stone tower?

| person | tower height (inches) |
|---|---|
| Andre | |
| Tyler | |
| Clare | |
| Diego | |

2. Elena came along and built a tower that is 5 times as tall as Diego's tower. Is Elena's tower more than 6 feet? Show your reasoning.