## Unit 4 Lesson 1: Lots of Flags

### 1 Scaled or Not? (Warm up)

#### Student Task Statement

1. Which of the geometric objects are scaled versions of each other?
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1. Pick two of the objects that are scaled copies and find the scale factor.

### 2 Flags Are Many Sizes

#### Student Task Statement

One standard size for the United States flag is 19 feet by 10 feet. On a flag of this size, the union (the blue rectangle in the top-left corner) is $7\frac{5}{8}$ feet by $5\frac{3}{8}$ feet.

There are many places that display flags of different sizes.

* Many classrooms display a U.S. flag.
* Flags are often displayed on stamps.
* There was a flag on the space shuttle.
* Astronauts on the Apollo missions had a flag on a shoulder patch.



1. Choose one of the four options and decide on a size that would be appropriate for this flag. Find the size of the union.
2. Share your answer with another group that used a different option. What do your dimensions have in common?

### 3 What Percentage Is the Union?

#### Student Task Statement

On a U.S. flag that is 19 feet by 10 feet, the union is $7\frac{5}{8}$ feet by $5\frac{3}{8}$ feet. For each question, first estimate the answer and then compute the actual percentage.

1. What **percentage** of the flag is taken up by the union?
2. What percentage of the flag is red? Be prepared to share your reasoning.



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