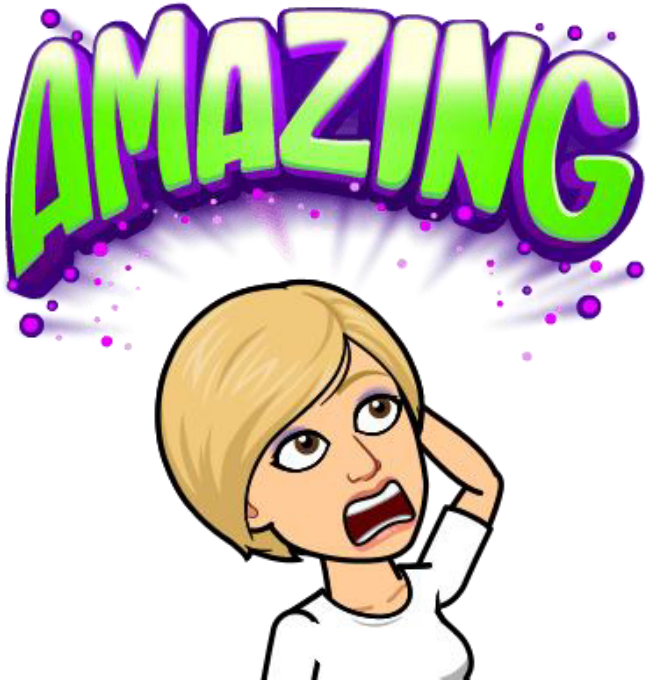
Today's Materials



- calculator
- pencil
- notebook
- glue
- highlighter

Making Scaled Copies

Lesson 3

CCSS Standards: Building on	• 6.NS.B.3
CCSS Standards: Addressing	• 7.G.A.1
CCSS Standards: Building towards	• 7.RP.A.2

More or Less?

Warm Up 3.1

- Collect & Display

Bellwork:For each problem, select the answer from the two choices.

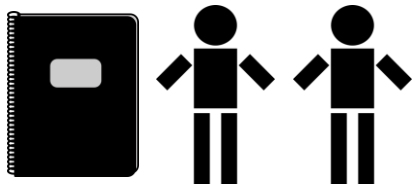
1. The value of **25 • (8.5)** is:
    a. More than 205
    b. Less than 205
2. The value of **(9.93) • (0.984)** is:
    a. More than 10
    b. Less than 10
3. The value of **(0.24) • (0.67)** is:
    a. More than 0.2
    b. Less than 0.2

Let’s draw scaled copies!

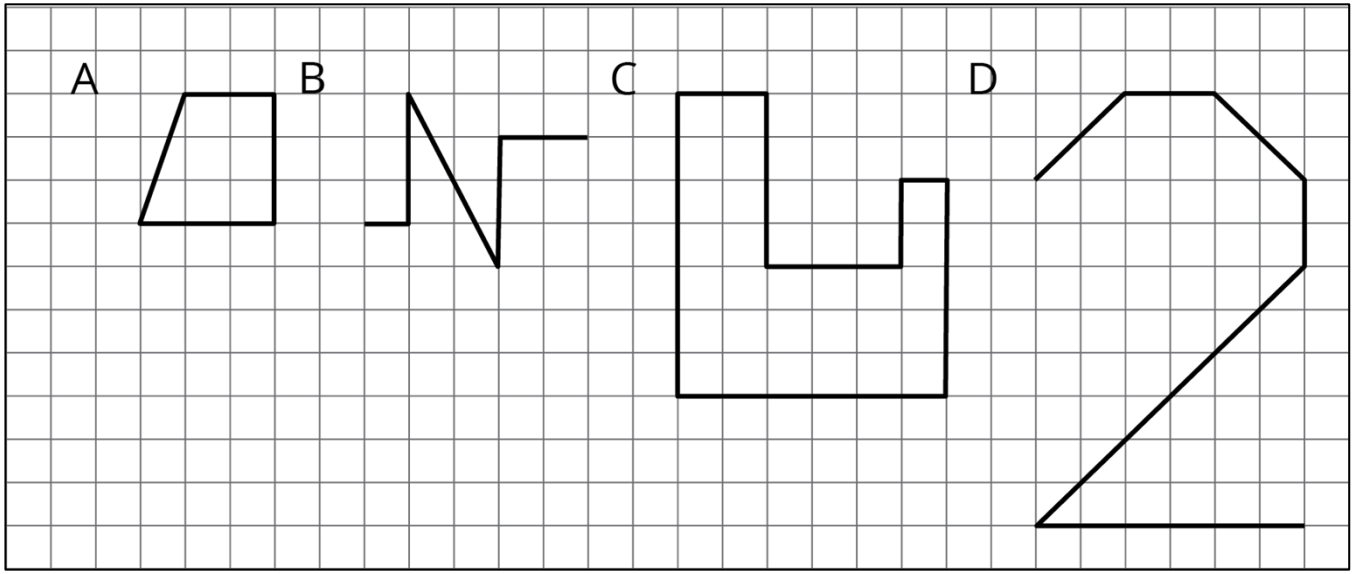
Drawing Scaled Copies (optional)

Optional Activity 3.2

- **Think Pair Share**
- **Information Gap**

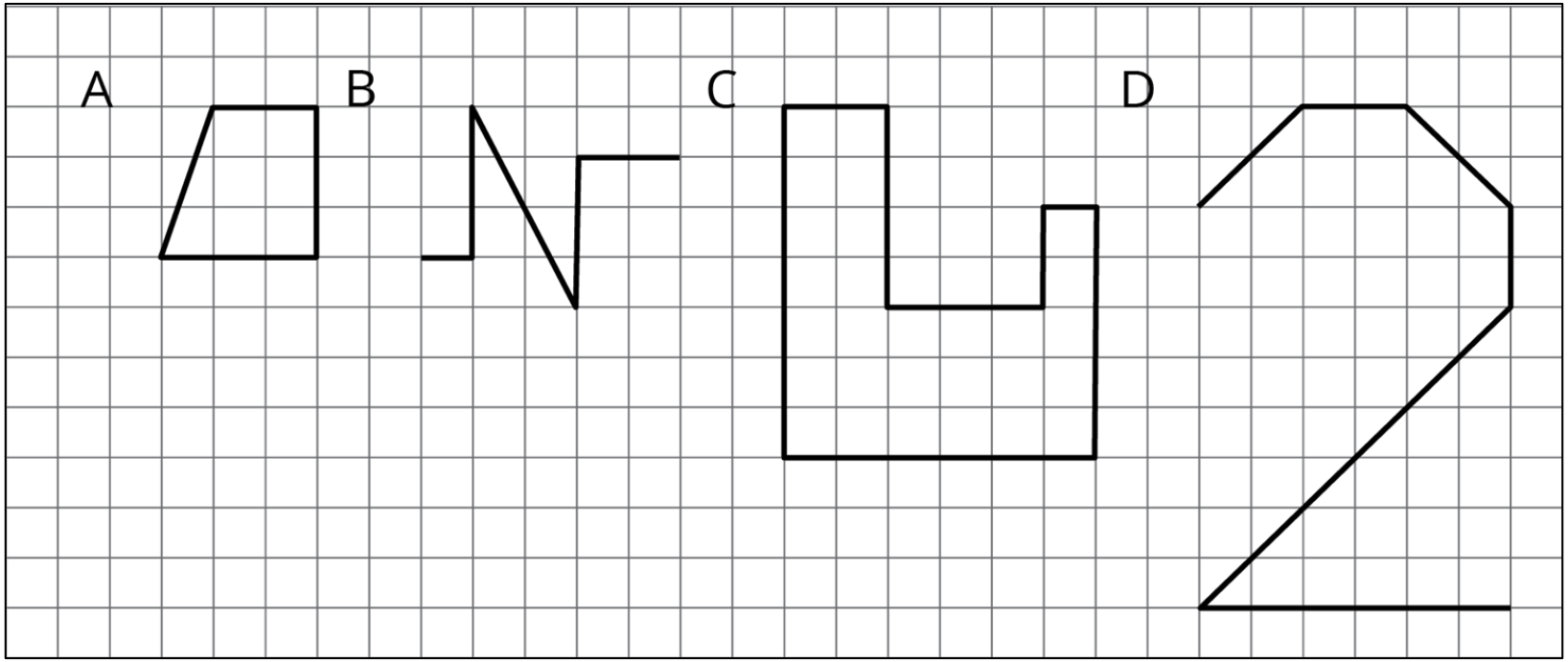


1. Draw a scaled copy of either Figure A or B using a scale factor of 3.
2. Draw a scaled copy of either Figure C or D using a scale factor of ½.



Begin working on your own.
(3 min.)

- ❑ Share your drawings as a team.
- ❑ Check each other's work.
- ❑ Revise your drawing.

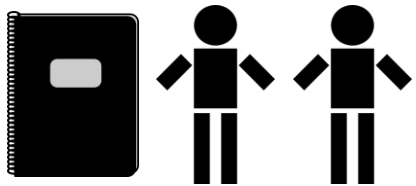


- How did you know how long to make each side in your scaled copy?
- How did you know how big to make each angle in your scaled copy?
- If you made a mistake while drawing your scaled copy, how could you tell?

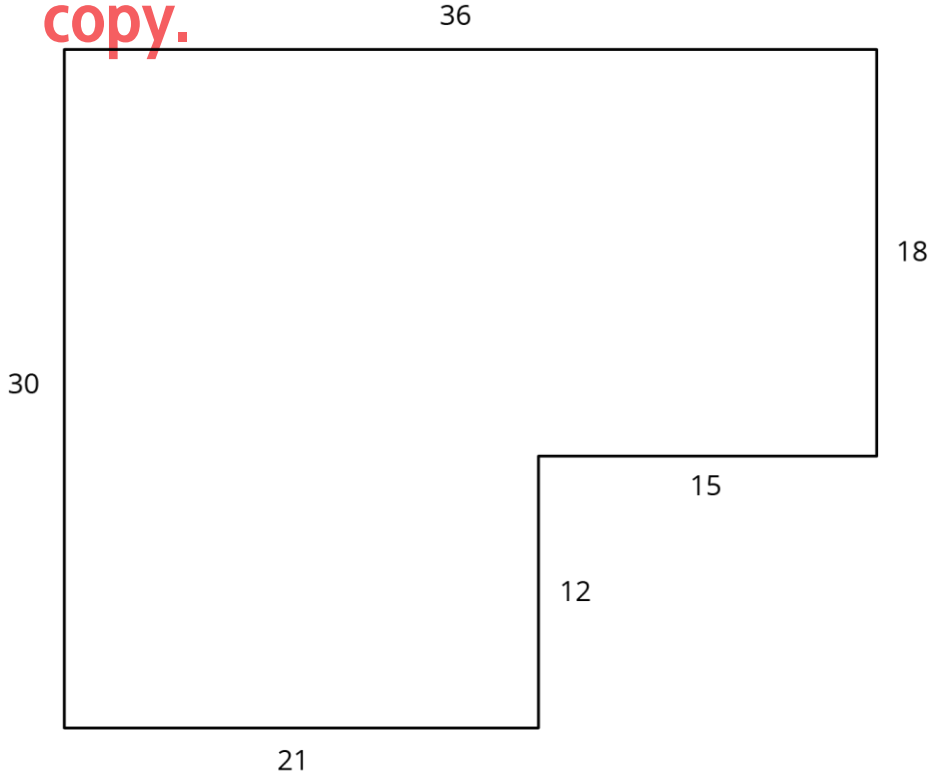
Which Operations? (Part 1)

Activity 3.3

- 5 Practices
- Think Pair Share
- Stronger and Clearer
- Critique, Correct, & Clarify



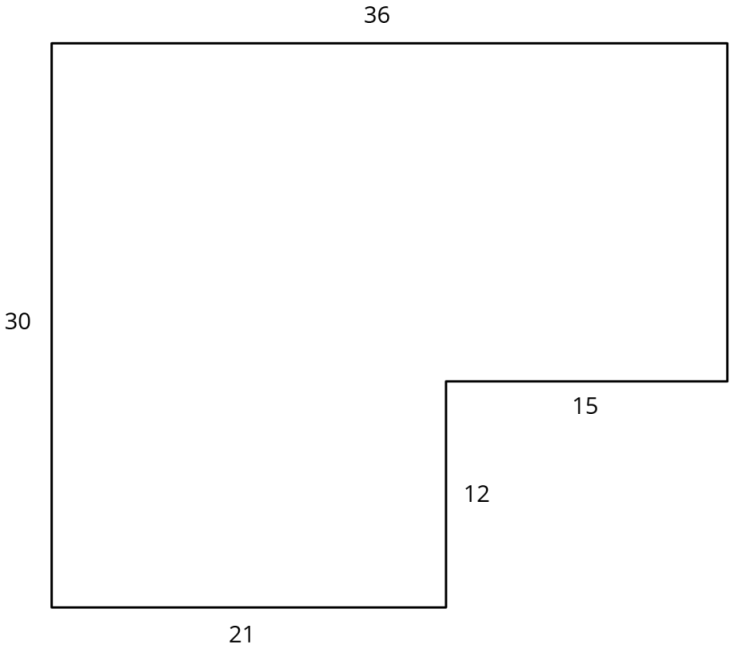
Diego and Jada want to scale this polygon so that the side that corresponds to 15 units in the original is 5 units in the scaled copy.

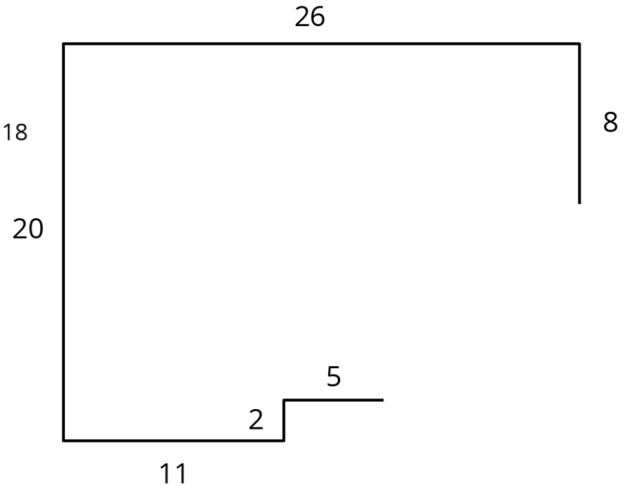


Begin working with Quiet Think Time (3 min.)

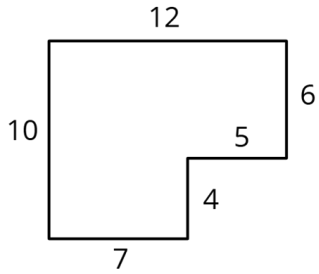
Share your thinking as a team.

Did each method produce a scaled copy?



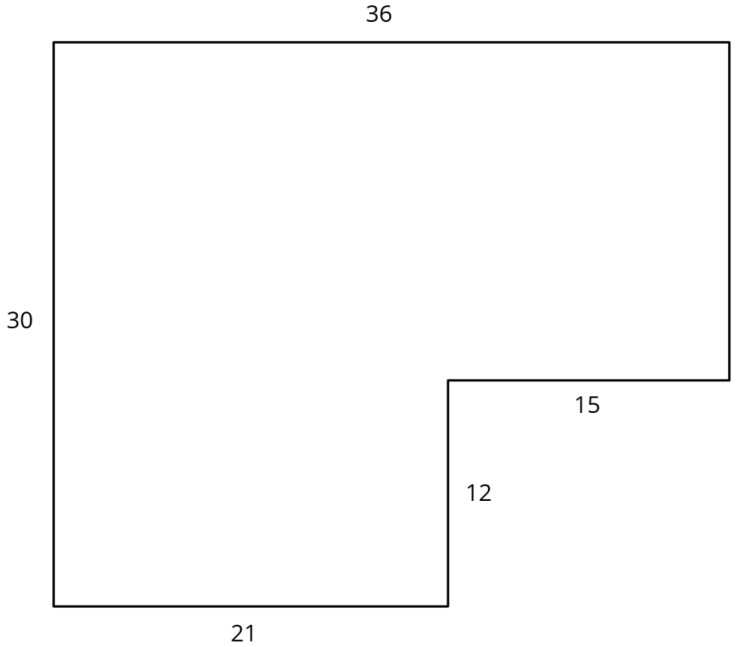


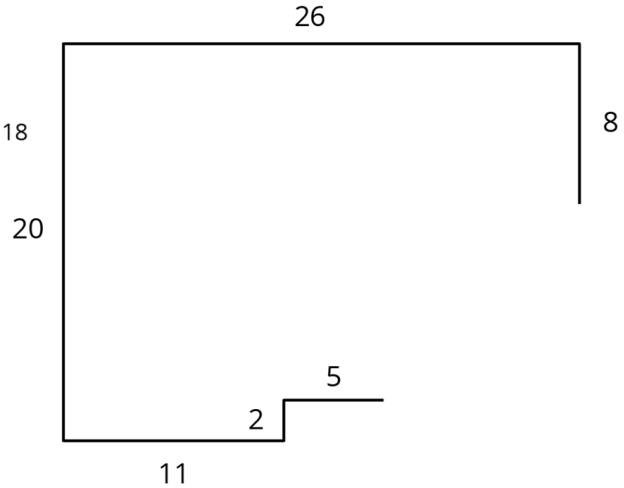
Diego's drawing



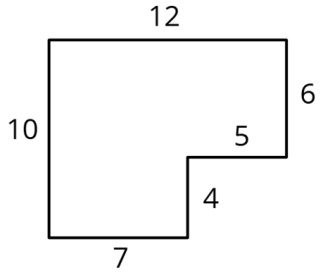
Jada's drawing

What is the scale factor used to create Jada's drawing? What about for Diego's drawing?



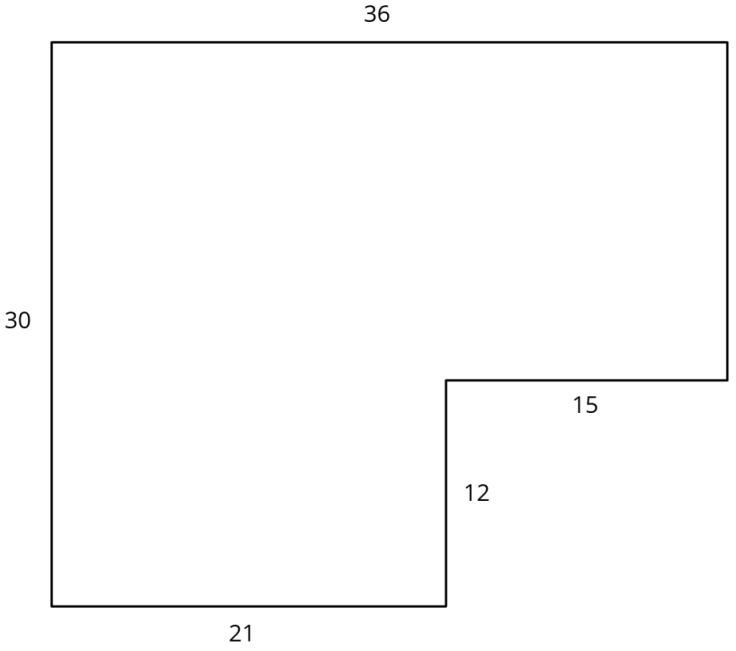


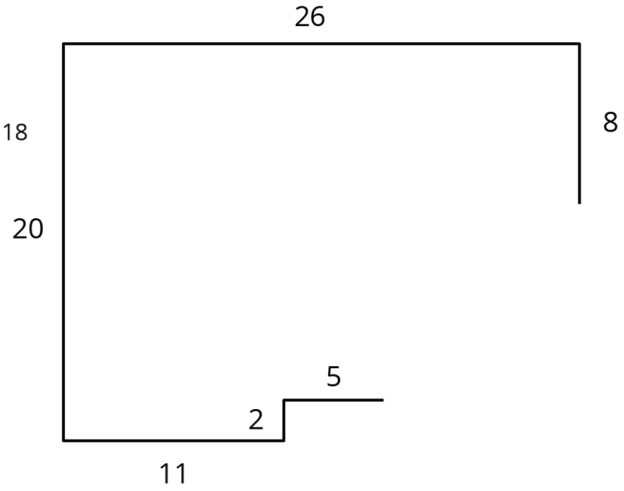
Diego's drawing



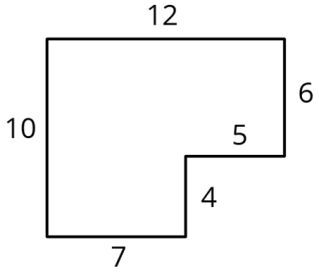
Jada's drawing

- What do you notice about the corresponding angles in the drawings?
- Subtraction of side-lengths does not (usually) produce scaled copies. Do you think addition would work?





Diego's drawing

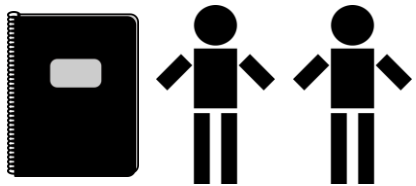


Jada's drawing

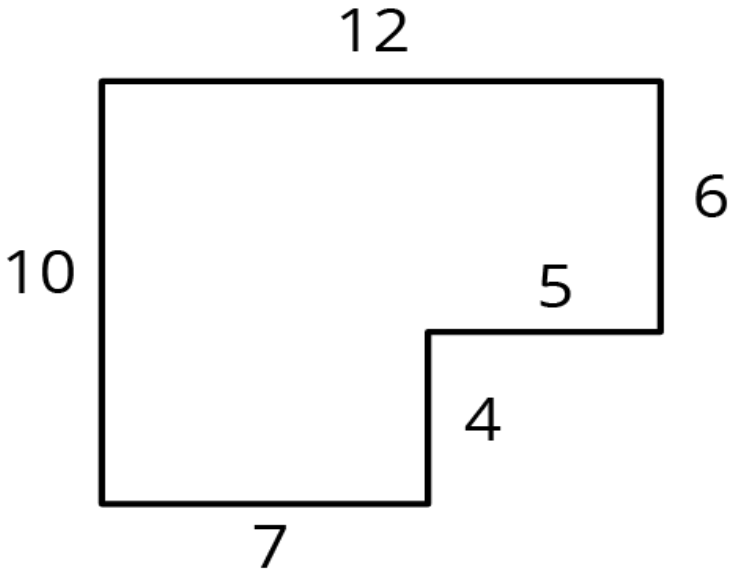
Which Operations? (Part 2)

Activity 3.4

- Think Pair Share
- Stronger & Clearer
- Discussion Supports
- Collect & Display



Andre wants to make a scaled copy of Jada's drawing so the side that corresponds to 4 units in Jada's polygon is 8 units in his scaled copy.



Jada's drawing

Which side of the polygon does Andre want to be 8 units long on his drawing?

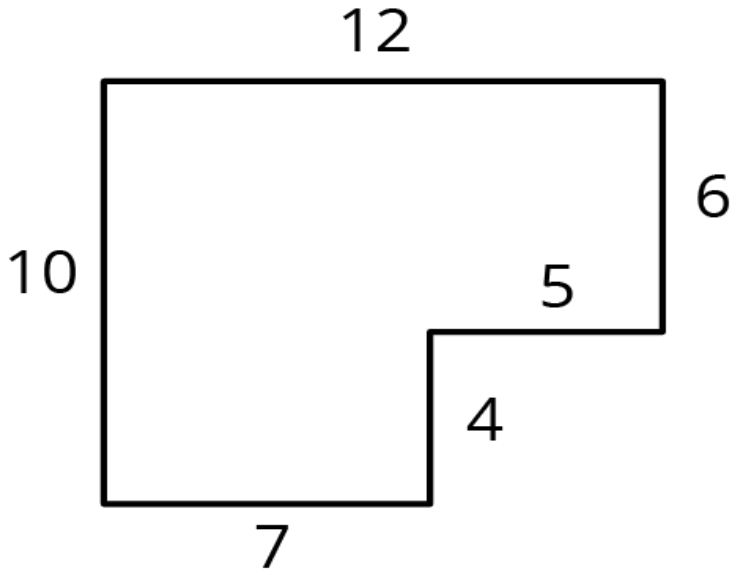
Begin working with Quiet Work Time (6 min.).

Share your work as a team.

Andre says, “I wonder if I should add 4 units to the lengths of all of the segments.”

What would you say in response?

- What scale factor did you use to create your copy? Why?
- How did you use an index card to measure the lengths for the copy?
- How did you measure the angles for the copy?



Jada's drawing

“Are you ready for more?”

The side lengths of Triangle B are all 5 more than the side lengths of Triangle A.

Can Triangle B be a scaled copy of triangle A? Explain your reasoning.

How do we draw a scaled copy of a figure?

Can we create scaled copies by adding or subtracting the same value from all lengths? Why or why not?

When drawing scaled copies, we need to remember to multiply!

➔ Multiply all of the lengths by the scale factor.

Adding and subtracting the same value to all lengths will not create scaled copies.

Today's Goals

- ❑ I know what operation to use on the side lengths of a figure to produce a scaled copy.
- ❑ I can draw a scaled copy of a figure using a given scale factor.

More Scaled Copies

Cool Down