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Strategies Toolkit

Explore



You will need Pattern Blocks.

Make a parallelogram that is $\frac{3}{4}$ red and $\frac{1}{4}$ blue. Can you do this in more than one way? Explain.

Show and Share

Describe the strategy you used to solve this problem.



Connect

Use Pattern Blocks.

Make the smallest triangle you can that is $\frac{3}{16}$ green, $\frac{3}{16}$ red, $\frac{1}{4}$ blue, and $\frac{3}{8}$ yellow. How many blocks of each colour will you need?



What do you know?

- · Use Pattern Blocks to build a triangle.
- $\frac{3}{16}$ of the triangle is green.
- $\frac{3}{16}$ of the triangle is red.
- $\frac{1}{4}$ of the triangle is blue.
- $\frac{3}{8}$ of the triangle is yellow.

Think of a strategy to help you solve the problem.

You can use a model.

Strategies

- · Make a table.
- · Use a model.
- · Draw a diagram.
- Solve a simpler problem.
- · Work backward.
- · Guess and check.
- Make an organized list.
- · Use a pattern.
- · Draw a graph.





Use Pattern Blocks to build the triangle.

The smallest figure is the green triangle.

 $\frac{3}{16}$ of the triangle is green.

How many green triangles could you use? 3 green triangles How many blocks of each colour do you need 2 blue rhombuses to build the triangle?



1 red trapezoid 1 yellow hexagon



Check your work.

Is $\frac{3}{16}$ of the triangle green?

Is $\frac{3}{16}$ of the triangle red?

Is $\frac{1}{4}$ of the triangle blue?

Is $\frac{3}{8}$ of the triangle yellow?

Practice

Choose one of the **Strategies**

- Brenna can cut a log into thirds in 10 min. 25 min How long would it take her to cut a similar log into sixths?
- 2. One-fourth of a 10 m by 10 m garden is planted with corn. Two-tenths of the garden is planted with squash. Thirty-five hundredths of the garden is planted with beans. The rest is planted with flowers. What fraction of the garden is planted with flowers? $\frac{20}{100}$ Write your answer as a decimal.
- **3.** A snail is trying to reach a leaf 4 m away. The snail crawls 2 m on the first day. Each day after that, it crawls one-half as far as the previous day. After 4 days, will the snail reach the leaf? How do you know? No





Reflect

How can using a model help you to solve problems with fractions and decimals? Use words, pictures, or numbers to explain.