LESSON

Strategies Toolkit

Explore

You will need a tangram and a protractor.

How many different angles can you construct using one or more tans? Is it possible to construct an angle that measures 150°? How do you know? Record your work.



Show and Share

How do you know you have found all the possible angles?

Connect

You will need Pattern Blocks and a protractor. How many different ways can you construct an angle that measures 150°, using one or more Pattern Blocks? Explain.



What do you know?

- There are 6 different Pattern Blocks.
- You can use one or more blocks to construct an angle that measures 150°.

Plan

88

Think of a strategy to help you solve the problem.

- You can make an organized list.
- Use different blocks to make angles that measure 150°.

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.



Trace or sketch each block. Use a protractor to measure the angles in each Pattern Block. Record the angle measures on your sketch. Choose 1 or more blocks you think you can arrange to form an angle that measures 150°. Record your arrangement on your list. Continue to build, sketch, measure, and record until you have found all the possible arrangements.



Check your work. How do you know that you have found all the angles? Explain.

Practice

- Use 2 or more of each type of Pattern Block. How many different angles can you construct? Show your work.
- Use only red Pattern Blocks.
 How many different angles can you construct?
 How do you know that you found all of them?
- Use 6 green Pattern Blocks.
 Find all the different figures you can make using all 6 blocks.
 Record each figure.

Reflect

How did you use an organized list to solve a problem? Use an example to explain.





Choose one of the

Strategies



Understan

