7C Dilatations with Pattern Blocks

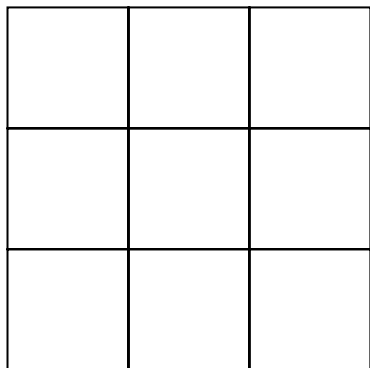**GOAL** Identify and describe dilatations created using concrete materials.

Explore the Math

Simon arranged nine square pattern blocks to create this design.

❓ How can you use pattern blocks to create dilatations of designs?

A. Use four pattern blocks to create a design that is similar to Simon's design, but is a reduction of Simon's design. Sketch your design.

B. Use one pattern block to create a reduction of Simon's design. Sketch your design.

C. How do you know that your designs from steps A and B are similar?

D. Tynessa made this design with trapezoid pattern blocks. Is it similar to a trapezoid pattern block? How do you know? Is it a reduction or an enlargement of a trapezoid pattern block? How do you know?

E. Choose another pattern block that you can use to create a larger shape that is similar to the pattern block. Sketch your design. Are the designs congruent? How do you know?
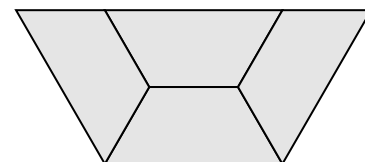
Reflecting

1. Jody created an enlargement of a pattern block design. Paul created a reduction of the same design.

  a) Is Jody's design similar to Paul's? How do you know?

  b) Is Paul's design an enlargement or a reduction of Jody's? How do you know?

2. Which trapezoids cannot be dilatations of a trapezoid pattern block? Explain.