

Name:

Date:

Bathroom Tiling

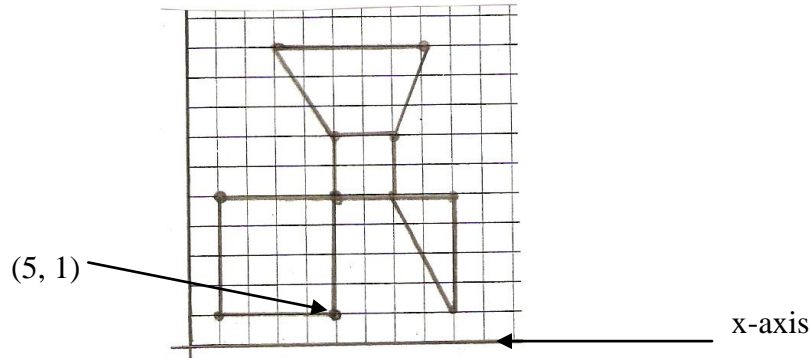
(GS02/SR01)

On-Demand (Check One)

Yes No

Leigh is tiling her bathroom floor and has drawn this design. She is going to create congruent designs using reflections, rotations, and translations.

Leigh's Design



1. Copy Leigh's design on graph paper in the first quadrant.
2. Rotate Leigh's design 90° clockwise about the origin. Draw the image of Leigh's design rotated 90° clockwise about the origin
3. Reflect the design in quadrant IV across the y-axis. Draw the image of the design in quadrant IV reflected across the y-axis.
4. Transform (translations, reflection, rotations) the design in quadrant IV to quadrant II using two or more transformations. Draw the image of the design in quadrant IV transformed into quadrant II. Describe the transformations you used.

Now that the design is completed, Leigh wants to determine the total number of tiles needed to make the design. She wants the trapezoids to be red, the squares to be blue, the triangles to be green and the rest of the tiles to be white.

5. List two pieces of mathematical information about the completed design that will help Leigh determine the number of each color of tile needed to make the completed design.

6. List two pieces of mathematical information about the completed design that are missing or unknown that Leigh needs to determine the number of each color of tile needed to make the completed design.

7. Write two questions that need to be answered to determine the number of each color of tile needed to make the completed design. Be sure to write them as questions.
