

## 6.5

# Cookie Cutters

## Symmetry

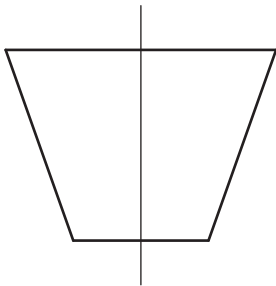
Students should be able to answer these questions after Lesson 6.5:

- How are symmetry lines determined?
- How is rotational symmetry determined?

## Directions

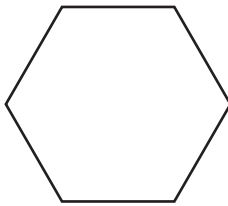
Read Question 1 and its solution. Then identify the number of lines of symmetry that exist for each figure in Questions 2 and 3.

1. How many lines of symmetry does the figure have?



**Step 1** A line of symmetry is a line that divides the figure into identical parts. Each side of the symmetry line is a mirror image of the other. In this instance, a vertical line is the only line of symmetry.

2.



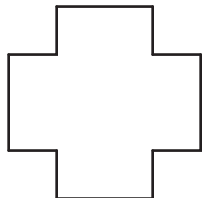
3.



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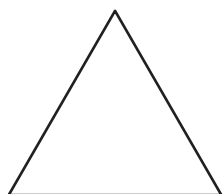
Read Question 4 and its solution. Then determine whether each figure in Questions 5 and 6 has rotational symmetry.

4. A plane figure has rotational symmetry if you can rotate the figure less than or equal to  $180^\circ$  and the resulting figure is the same as the original figure in the same position.



**Step 1** The figure does have rotational symmetry. A  $90^\circ$  turn results in the exact same image.

5.



6.

