

## 2ACE Exercises 10–13

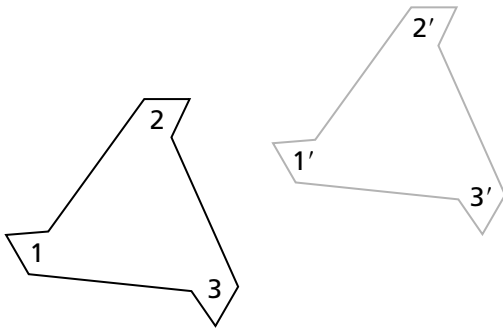
### Investigation 2

#### Kaleidoscopes, Hubcaps, and Mirrors

Exercises 10–13 each give a figure, and **its image under a transformation**.

- Tell whether the transformation was a **reflection, a rotation, or a translation**.
- Then, indicate the line of reflection, the center and angle of rotation, or the direction and distance of the translation.

10.



**HINT** A *reflection* means that you can draw a line of symmetry that divides the figure into halves that are mirror images.

A *rotation* turns a figure counterclockwise about a point (the center) to a position in which the figure looks the same as the figure in the original position.

A *translation* slides each point of a figure a given distance and direction.

Is this a **reflection, a rotation, or a translation**?

If it is a **reflection**, indicate the **reflection line**.

If it is a **rotation**, indicate the **center and angle of rotation**.

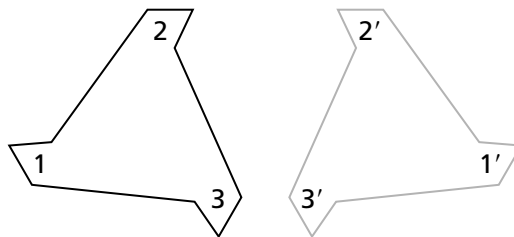
If it is a **translation**, indicate the **direction and distance of the translation**.

11. Is this a **reflection, a rotation, or a translation**?

If it is a **reflection**, indicate the **reflection line**.

If it is a **rotation**, indicate the **center and angle of rotation**.

If it is a **translation**, indicate the **direction and distance of the translation**.



**2ACE Exercises 10–13** (continued)

**Investigation 2**

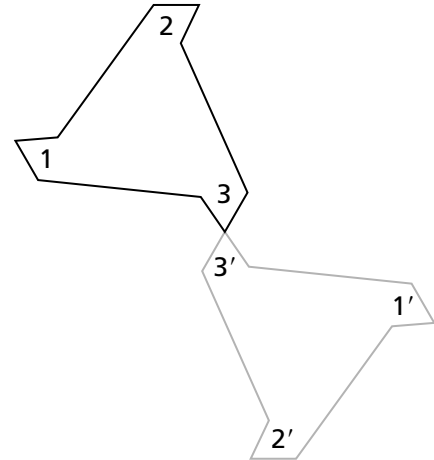
**Kaleidoscopes, Hubcaps, and Mirrors**

**12.** Is this a reflection, a rotation, or a translation?

If it is a **reflection**, indicate the **reflection line**.

If it is a **rotation**, indicate the **center and angle of rotation**.

If it is a **translation**, indicate the **direction and distance of the translation**.



**13.** Is this a reflection, a rotation, or a translation?

If it is a **reflection**, indicate the **reflection line**.

If it is a **rotation**, indicate the **center and angle of rotation**.

If it is a **translation**, indicate the **direction and distance of the translation**.

