## Planning Notes

### Get Ready

- Review the meaning of *image* in terms of the position of a figure after a transformation.
- Review the difference between horizontal and vertical. Use the idea of a horizon to help students recall the difference between the two words. Remind students to do the horizontal translation before the vertical one.
- Review how to read and label translated images using prime notation.
- Review how to rotate an object around a point of rotation. Discuss counterclockwise versus clockwise rotations.
- Review how to reflect an object in a line of reflection. Remind students to make sure their reflections are perpendicular to the line of reflection.
- Discuss the meaning of *surface area*.
- Post examples of reflections, translations, rotations, and surface area for students to refer to throughout the chapter.
- Provide students with **BLM 1–1 Chapter 1 Problems of the Week** at the beginning of the chapter. Discuss solutions with the class as you progress through the chapter. Alternatively, you can use this blackline master as a review exercise at the end of the chapter. Have students try at least one question. Many of these problems require students to think creatively and try a variety of approaches. Students can take these problems home or work in class with other students when time permits.

### Math Link

- Review the following vocabulary: *symmetry*, *original images*, *vertical*, *horizontal*, *reflected images*, *translated images*, *quadrants*.
- Have students work in small groups to complete the questions.

### Foldable

- The shutter fold design allows students to write their own terms and add extra pages if needed.
- Once the Foldable has been constructed, ensure that students have sufficient time to fill in the blanks for the review. This will allow you to check their understanding of transformations. On the front, students can write information that would be helpful, either from the review or as the chapter progresses.
- Section 1.1 asks students to identify whether a shape has line symmetry. Once the concepts for this section have been reviewed, students should identify which shapes have line symmetry. Encourage them to use rulers and/or tissue paper.
- Section 1.2 provides a space to complete the blanks for terms associated with rotation symmetry and transformations. Encourage students to use tissue paper to help identify the order of rotation. The shapes on the back of the Foldable can be reviewed for rotation symmetry.
- The last section allows students to apply their understanding of symmetry in order to complete questions on surface area. Ensure students show all the steps in their calculations so they will have a process to review at the end of the year.
- For additional ideas to incorporate into this Foldable or to see video of the construction of this Foldable, see the *MathLinks 9 Lesson Planner and Program Overview DVD*.