

Chapter 1 Math Link Introduction

This worksheet will help you with the Math Link introduction on page 5.

1. **a)** The flower in #1a) has several lines of reflection. Place a Mira™ from the top left corner through the petals to the bottom right corner. Does the Mira™ show a line of reflection?
 - b)** Place the Mira™ or mirror to find another line of reflection and describe how you placed it. How many lines of reflection are there in all?
2. **a)** Place the Mira™ or mirror up and down through the centre of the picture of the dragonfly. Is this a line of reflection?
 - b)** Are there any other lines of reflection?
3. In the following diagram, the line of reflection is shown by the dashed line, labelled r .



- a)** Use a Mira™ or mirror to reflect the image across the line of reflection. Draw the reflected image.

- b)** Complete the statements to describe the reflected image for the diagram above.

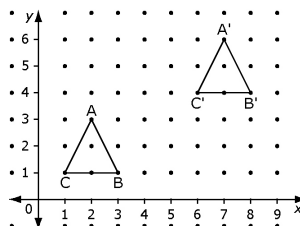
The original image in the diagram has the point _____ as the highest point.

The new image shows the point _____ as the lowest point.

The new image has been reflected _____

(horizontally/vertically) in the line of reflection.

4. Examine the diagram to the right.



- a)** Figure ABC has been translated to create figure A'B'C'. Complete the following to determine a rule that could be used for translating ABC to A'B'C'.

To get point A to point A', move it _____ spaces right and _____ spaces up.

To get point B to point B', move it _____ spaces right and _____ spaces up.

To get point C to point C', move it _____ spaces right and _____ spaces up.

What is the rule for moving ABC to A'B'C'?
- b)** What is one other possible rule? **Hint:** Think about starting the move in another direction.
- c)** The original figure ABC is in quadrant I and the translated image A'B'C' is also in quadrant I. Suppose you want to move ABC to quadrant III. You could move point A from (2, 3) to A' at (-2, -3). Describe the move in words. Write a rule for moving the entire shape into quadrant III.