Exploring Ribbonwork (Part B)

# Reflect Over the *y*-Axis

The transformation from the preimage in Quadrant I to *image 2* in Quadrant II is known as a **reflection over the *y*-axis**. Write the coordinates for each corresponding point to complete the table.

| Preimage | Image 2 | Look for a pattern between the first column and second column.Does the *x*-value change? If so, describe the change.Does the *y*-value change? If so, describe the change. |
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4) Do your descriptions above for how *x* and *y* change hold true when *image 4* is reflected over the *y*-axis to get *image 3*? Explain.

5) Do your descriptions above for how *x* and *y* change hold true when *image 2* is reflected over the *x*-axis to get *image 3*? Explain.

# Reflect Over the *x*-Axis

There must be a different pattern to follow when a figure is **reflected over the *x*-axis**. Select any two images that are a reflection over the *x*-axis and complete the table below.

| Image #\_\_ | Image #\_\_ | Do your best to describe the pattern of how the coordinates change from the first column to the second column. |
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6) Does your description apply to the other pair of reflections over the *x*-axis? Explain.

7) What else do you think we could reflect a figure over?