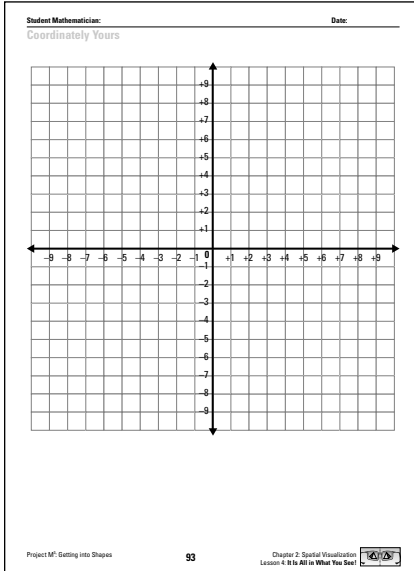


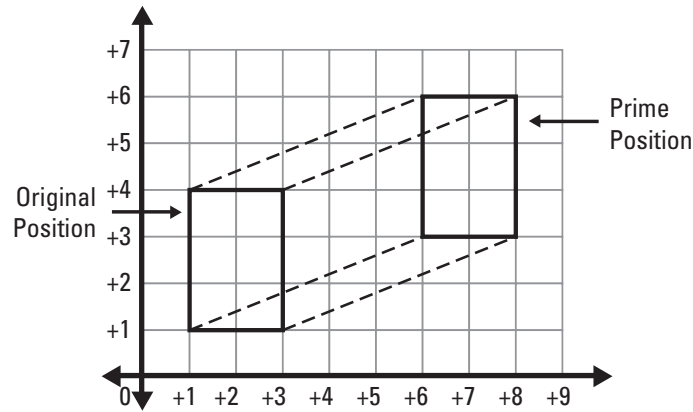
NOTES



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Original Position	Point A (1, 1)	Point B (3, 1)	Point C (3, 4)	Point D (1, 4)
Prime Position	Point A' (6, 3)	Point B' (8, 3)	Point C' (8, 6)	Point D' (6, 6)

Ask students to talk together and look at the representation to determine if there is a way to connect the vertices of the two figures in such a way that the representation becomes a three-dimensional shape. After exploring this, some students may find that they can connect the point at A to the point at A', B to B', C to C' and D to D' in order to create a rectangular prism.



Have students try to create a different three-dimensional representation on the coordinate graph on the “Coordinately Yours” worksheet using the same steps they have just tried. They also should be able to identify the translation, including the number of spaces left or right and up or down from the original shape. Ask students to identify the three-dimensional representation they created and to list the properties of the figure they created. For example, for a rectangular prism, the properties would include 6 faces, 8 vertices and 12 edges.



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Mathematical Communication



1. Montana was creating a three-dimensional shape with directions from her partner. She spilled grape jelly on her paper and cannot read some of the coordinates on her paper. The directions included the following ordered pairs: Point A (–8, –2), Point B (–5, –2), Point C (–5, 2), Point D (–8, 2), Point A' (–6, 0) and Point D' (–6, 4). Can you help her?

- Identify the missing points.
- Locate the points on the coordinate grid.
- Draw the three-dimensional shape.
- Describe the translation used.