

**SET UP:** Work with a partner. If possible, choose a partner who is about the same height as you are.

## YOU WILL NEED: • masking tape

1. Place a 5-ft long strip of masking tape on the floor. Imagine a large mirror that extends up from the tape. Stand a few feet apart from your partner, facing your partner and the imaginary mirror. Decide which one of you will be the preimage. The other will be the image after a reflection in the mirror. To begin, the preimage assumes a position such as arms outstretched. The image then mirrors this position. Repeat for 10 different positions, then switch roles for 10 different positions. If the preimage extends a left arm up, what does the image do?



- **2.** Now stand side-by-side with your partner with the imaginary mirror between you. Again the preimage assumes positions that the image mirrors. If the preimage places its closer hand "on" the mirror, what does the image do?
- **3.** Now imagine that the tape is a mirror *line* on the floor, rather than a plane. When the preimage assumes a position, the two feet on the floor act as points that are reflected in the line, resulting in two image points. On a coordinate plane, draw and label all four points for one of your positions and its image, using the *x*-axis or *y*-axis as the mirror line.

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