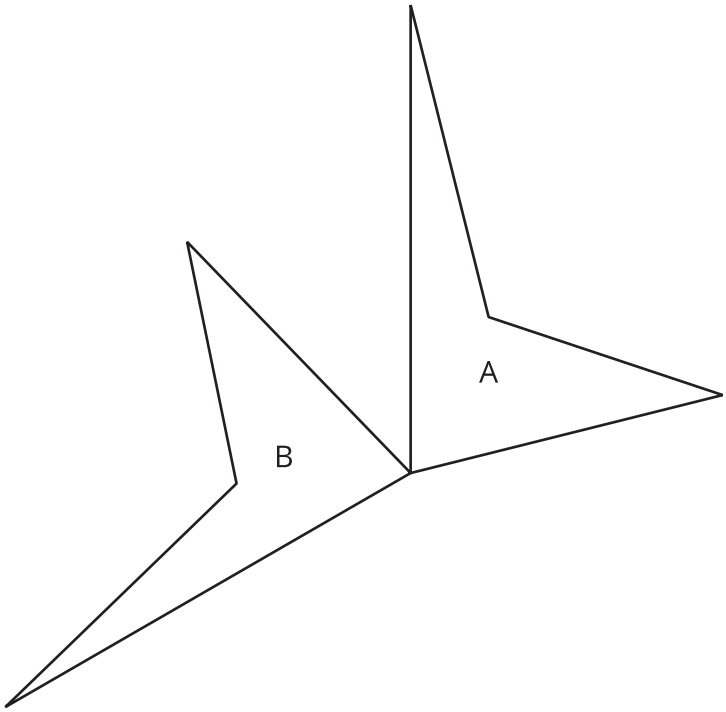
Naming the Moves

Let's be more precise about describing moves of figures in the plane.

2.1 Notice and Wonder: A Pair of Quadrilaterals

What do you notice? What do you wonder?



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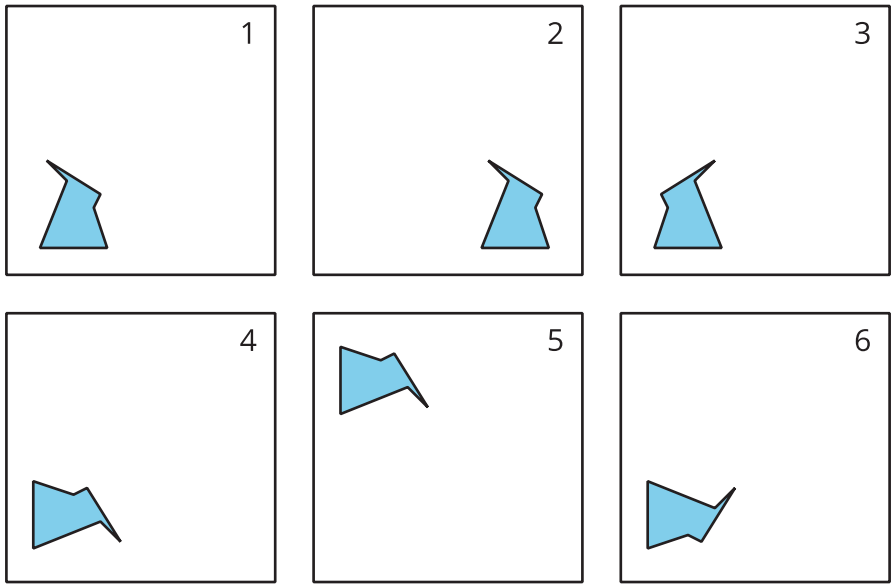
2.2 How Did You Make That Move?

Here is a set of dance moves.



1. Describe each move and say if it is a new type of move.
   a. Frame 1 to Frame 2
   b. Frame 2 to Frame 3
   c. Frame 3 to Frame 4
   d. Frame 4 to Frame 5
   e. Frame 5 to Frame 6

2. How would you describe the new move?

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Are you ready for more?

Create a new dance by putting the frames in a different order, then describe the moves. Are there any frames that are tricky to put next to each other and describe in a single move?

2.3 Card Sort: Move

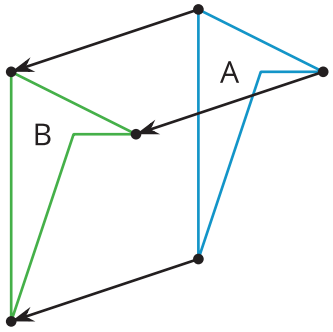
Your teacher will give you a set of cards. Take turns with your partner to sort the cards into categories according to the type of move they show. Be prepared to describe each category and why it is different from the others.

1. For each card, explain to your partner how you know which move it shows.
2. For each card that your partner describes, listen carefully to their explanation. If you disagree, discuss your thinking and work to reach an agreement.

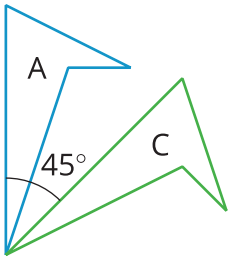
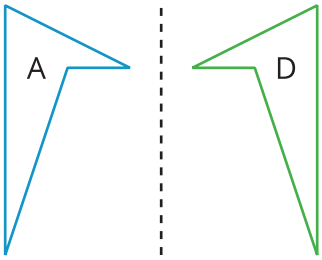
Lesson 2 Summary

Here are the moves we have learned about so far:

- A **translation** slides a figure without turning it. Every point in the figure goes the same distance in the same direction. For example, Figure A was translated down and to the left, as shown by the arrows. Figure B is a translation of Figure A.



- A **rotation** turns a figure about a point, called the center of the rotation. Every point on the figure goes in a circle around the center and makes the same angle. The rotation can be **clockwise**, going in the same direction as the hands of a clock, or **counterclockwise**, going in the other direction. For example, Figure A was rotated 45° clockwise around its bottom vertex. Figure C is a rotation of Figure A.



- A **reflection** places points on the opposite side of a reflection line. The mirror image is a backwards copy of the original figure. The reflection line shows where the mirror should stand. For example, Figure A was reflected across the dotted line. Figure D is a reflection of Figure A.