A transformation moves a figure without changing its size or shape. So, a figure and its transformation are always congruent.

A translation is the movement of a figure along a straight line. The location is the only thing that changes with a translation.

Figure B is a translation of Figure A.

A rotation is the movement of a figure around a point. The location and position of a figure can change with a rotation.

Figure D is a rotation of Figure C around point R.

When a figure flips over a line creating a mirror image, it is called a reflection. The line the figure flips over is called the line of reflection. The location and position of a figure change with a reflection.

Figure F is a reflection of Figure E.

Identify each transformation.

1. 

2. 

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You can draw transformations.

To draw a 45° clockwise rotation around point C, first trace the figure. Next, place your pencil on the point of rotation and rotate the figure clockwise 45°. Then trace the figure in its new location.

To draw a vertical reflection of the original figure, trace the figure and flip it vertically over the line of reflection. Then trace the figure in its new location.

Draw each transformation.

3. vertical reflection

4. 60° clockwise rotation around point A