Practice B
Transformations

Identify each as a translation, rotation, reflection, or none of these.

1. \[ \begin{array}{c}
\text{Original} \\
\text{Transformation}
\end{array} \]

2. \[ \begin{array}{c}
\text{Original} \\
\text{Transformation}
\end{array} \]

Draw the image of the rectangle \( ABCD \) with vertices \((-2, 1), (-1, 3), \) and \((3, 1), (2, 1)\) after each transformation.

3. translation 3 units down

4. \(180^\circ\) rotation around \((0, 0)\)

Triangle \( ABC \) has vertices \(A(-3, 1), B(2, 4), \) and \(C(3, 1)\). Find the coordinates of the image of each point after each transformation.

5. reflection across the \(x\)-axis, point \(B\)

6. translation 6 units down, point \(A\)
**Practice A**

**Transformations**

Identify each as a translation, rotation, reflection, or none of these.

1. reflection

2. rotation

3. none of these

4. translation

5. Draw the image of the triangle ABC with vertices (–2, 2), (2, 4), and (2, 2) after a translation 5 units down.

6. Triangle XYZ has vertices X(3, 4), Y(4, 1), and Z(1, 1). Find the coordinates of the image of point Z after a reflection across the y-axis.

**Practice B**

**Transformations**

Identify each as a translation, rotation, reflection, or none of these.

1. rotation

2. translation

3. translation 3 units down

4. 180° rotation around (0, 0)

5. reflection across the x-axis, point B

6. translation 6 units down, point A

**Practice C**

**Transformations**

Give the coordinates of each point after a reflection across the x-axis.

1. (–2, 3)

2. (–4, –1)

3. (5, 2)

4. (6, –3)

(–2, –3) (–4, 1) (5, –2) (6, 3)

Give the coordinates of each point after a reflection across the y-axis.

5. (–1, –5)

6. (3, 2)

7. (–4, 6)

8. (7, –2)

(1, –5) (–3, 2) (4, 6) (–7, –2)

Give the coordinates of each point after a 180° rotation around (0, 0).

9. (4, –6)

10. (–5, 3)

11. (1, 2)

12. (–3, –2)

(–4, 6) (5, –3) (–1, –2) (3, 2)

Perform the given transformation.

13. Reflect across line m.

14. Rotate clockwise 180° around (0, 0).

**Reaching**

**Transformations**

Complete to identify each type of transformation.

1. Slide the figure 2 units

2. Turn the figure 90°

3. Flip the figure

4. a mirror image (a flip)

5. a turning

6. a slide

The figure is reflected over line \( \ell \)

The figure is rotated 90° clockwise about point \( O \)

The figure is translated 3 units right and 1 unit up.

Identify each as a translation, rotation, or reflection.