Translations and Rotations (Section 13.1)

Isometry:

1. Translations:
   
2. Rotations:
   
3. Reflections:

Examples:

Translations:

Pre-image:

Image:

Examples:
a. Find the image of the given figure under a translation from X to X'.

[Diagram of translation example]
b. Find the figure whose image is given under a translation from X to X'.

Translations in a Coordinate System:

Examples:

a. Draw the image of the given figure under the translation \((x, y) \rightarrow (x+3, y-5)\).

b. Draw the figure whose image is given under the translation \((x, y) \rightarrow (x-4, y+2)\).
Rotations:

Examples:

a. Find the image of the figure under the rotation with center $O$.

b. Find the image of the figure under the rotation with center $O$.

Identity Transformation:
Half-Turn:

Example: Find the image of the figure under a half-turn about point O.

Homework: Assessment 13-1A (Page 780) 1, 3, 7, 15, 19