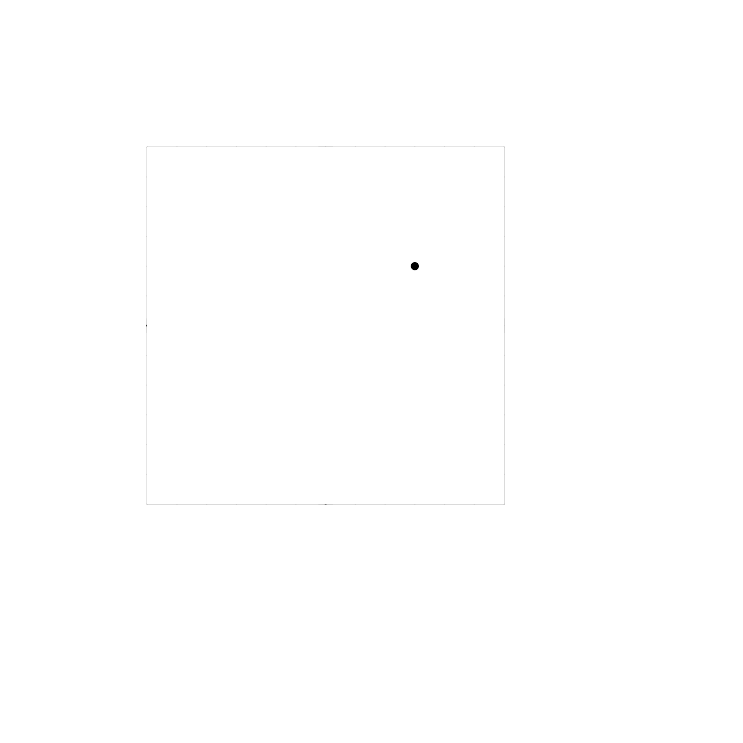
## Unit 6 Lesson 2: Transformations as Functions

### 1 Math Talk: Transforming a Point (Warm up)

#### Student Task Statement

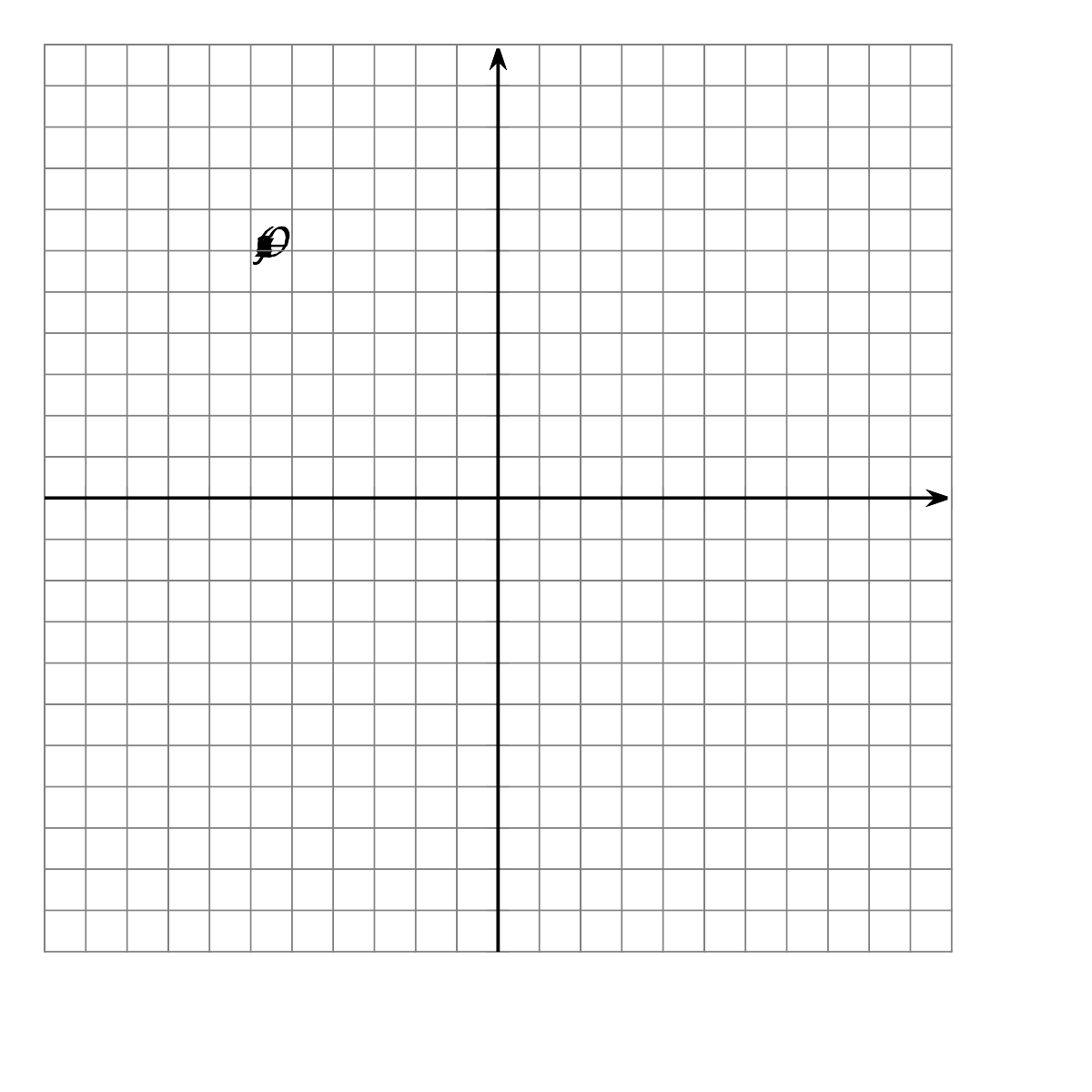
Mentally find the coordinates of the image of under each transformation.



* Translate by the directed line segment from to .
* Translate by the directed line segment from to .
* Reflect across the -axis.
* Rotate 180 degrees clockwise using the origin as a center.

### 2 Inputs and Outputs

#### Student Task Statement



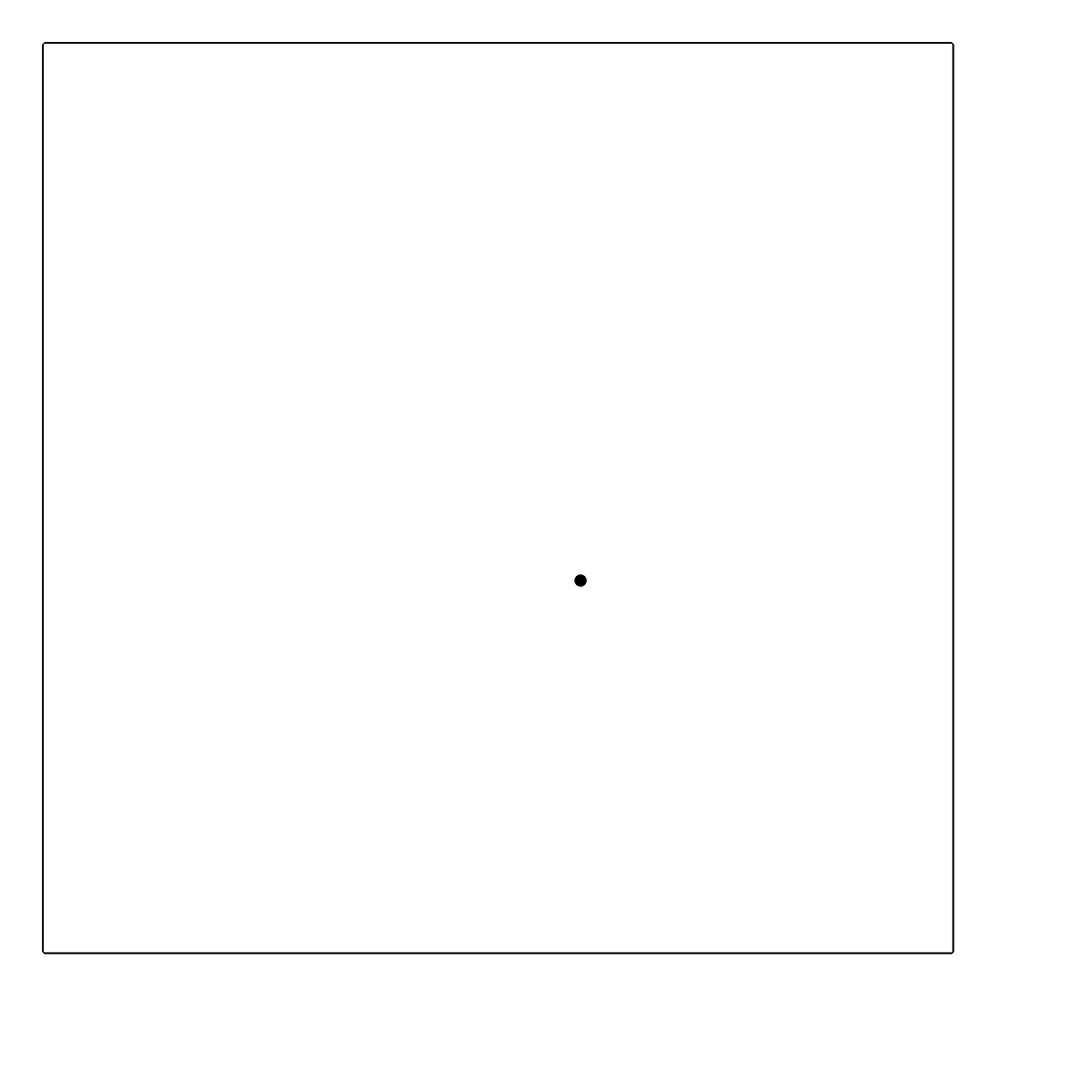
1. For each point , find its image under the transformation .
2. Next, sketch triangle and its image on the grid. What transformation is ?
3. For each point in the table, find .

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Next, sketch the original figure (the column) and image (the ( column). What transformation is ?

### 3 What Does it Do?

#### Student Task Statement



1. Here are some transformation rules. Apply each rule to quadrilateral  and graph the resulting image. Then describe the transformation.
   1. Label this transformation :
   2. Label this transformation :
   3. Label this transformation :



© CC BY 2019 by Illustrative Mathematics®