



Glide Reflections

Geometry – Creating A Document

Activity Overview:

In this activity, you will use the **Vector** and **Translation** tools to create a document that will explore glide reflections.

Materials

- *Technology needed (TI-Nspire™ handheld, computer software)*

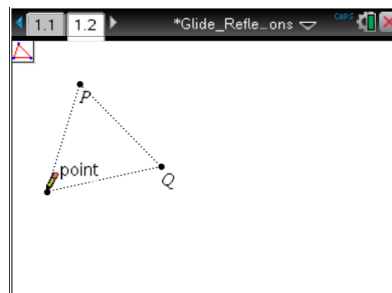


Step 1 Preparing the document





1. Open a new document by clicking on > **New Document** > **Add Notes**.
2. Type **Glide Reflections**.
Note: To obtain capital letters, press the key, then the letter.
3. Press > **File** > **Save As ...** and type **Glide_Reflections**.
Tab to and press .
- Note:** To obtain the underscore, press .
4. To add a new page, press > **Add Geometry**.
5. To hide the scale in the right corner of the screen, go to **Menu** > **View** > **Hide Scale**.
6. Press **Menu** > **Settings** > **Settings**. Press and to uncheck all the boxes. Press Tab to OK and press or .

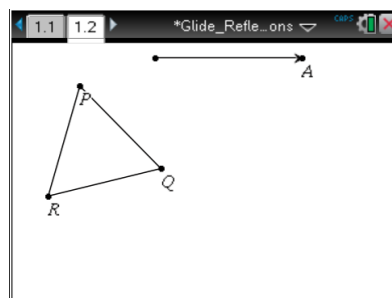
Step 2 Creating a triangle

1. Press **Menu** > **Shapes** > **Triangle**.
2. Move to a location for the first vertex. Press to mark the point. Immediately press **P** to label the vertex.
3. Move to the location for the second vertex. Press to mark the point. Immediately press **Q**.
4. Move to the location for the third vertex. Press to mark the point. Immediately press **R**.
5. Press to exit the **Triangle** tool.
6. Move labels if desired.






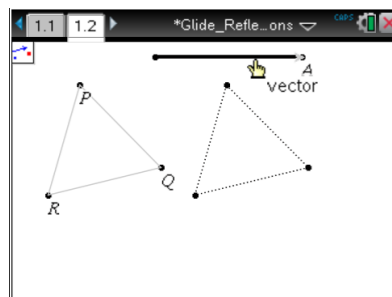
Step 3 Creating a vector

1. Press **Menu > Points & Lines > Vector**.
2. Move to a location as shown and mark the tail (beginning) of the vector by pressing .
3. Move to the right to extend the vector, and then press . Immediately press  **A** to label the point at the head (arrow) of the vector.
4. Press  to exit the **Vector** tool.











Step 4 Translating the triangle

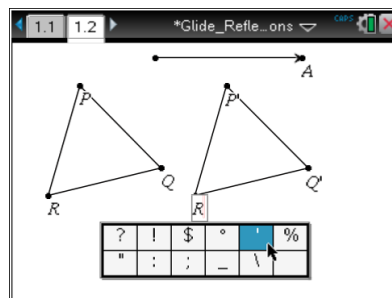
1. Press **Menu > Transformation > Translation**.
2. Move the cursor to triangle PQR and when the screen displays “triangle PQR ”, press .
3. Move to the vector and press .
4. Press  to exit the **Translation** tool.





Step 5 Labeling the vertices of the translated image

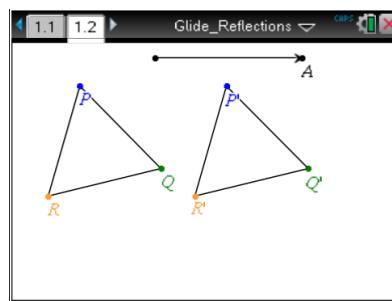
1. Right-click ( ) on the image of point P on the translated triangle to access the context menu for the point. Choose Label.
2. Press  **P**  .
3. Repeat for image points Q' and R' .
4. Move labels if desired.

Note: To access the ‘ apostrophe or ‘prime’ key on TI-Nspire, press  and then press  until the single quote or apostrophe key is selected. Then press .




Step 6 Adding Color

1. If desired, right-click ( ) on a point and select **Color > Line Color** to add color.



Step 7 Saving the document

1. Press  **S**.