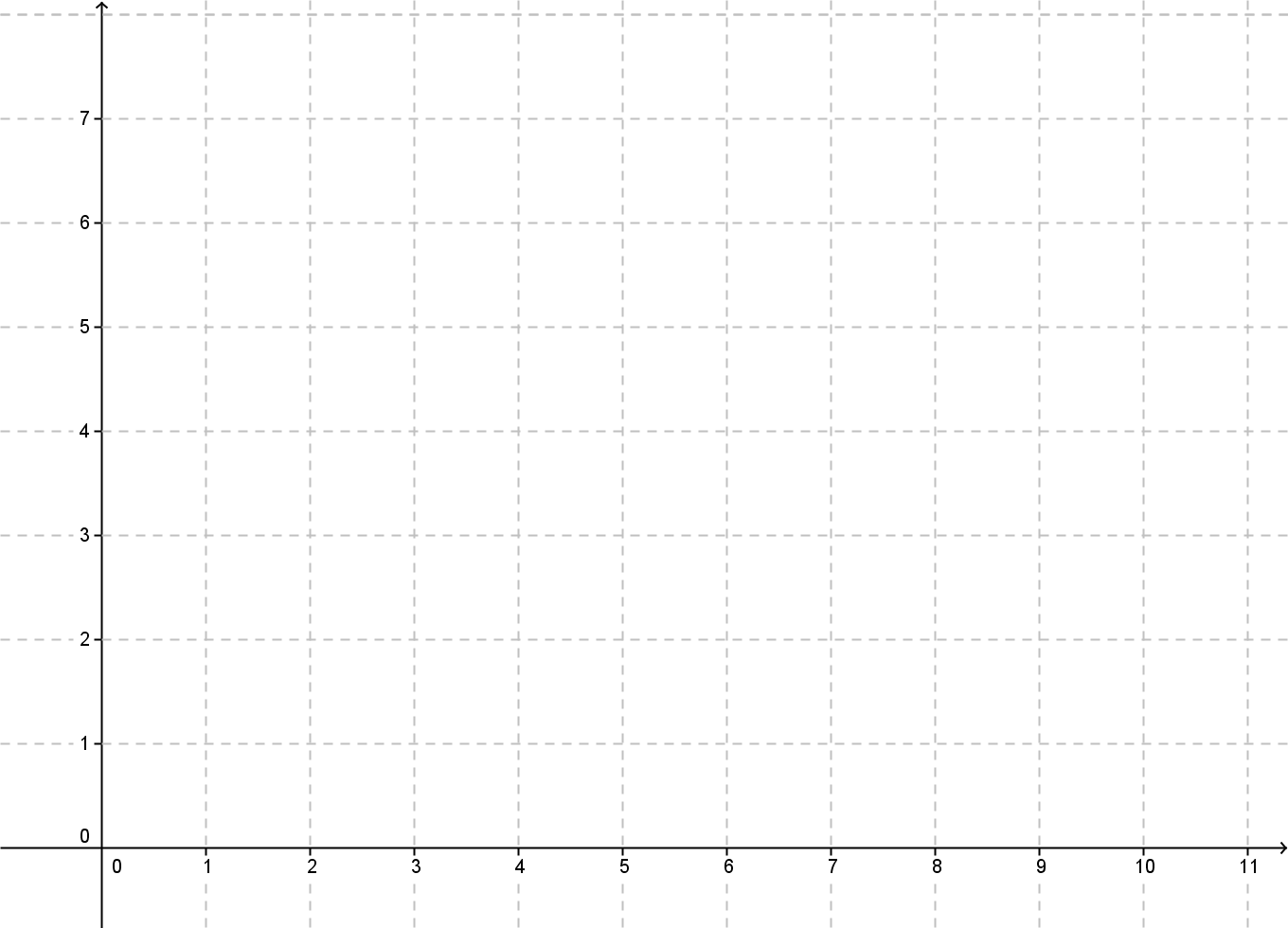
**Activity 1.2.6a Translating Lines**

1. Recall from Algebra 1: If two lines have the same \_\_\_\_\_\_\_\_\_, then they are parallel.
2. Describe, in your own words, what it means for two lines to be parallel.

3. Draw the line through the points *A*(1,4) and *B*(4,2). Then translate the line by the vector [3,1].



1. What are the coordinates of *A*’ and *B*’?
2. Find the slope of line and the slope of its image, line
3. What can you conclude about the two lines?
4. What happens if you translate the original line by a different vector?
5. What would the vector have to be in order to make the original line and its image coincide?

9. On the grid below draw a line anywhere and create a vector that is parallel to your line. Translate the line by this vector. What do you notice?

