**Activity 1.2.6a Translating Lines**

1. Start by constructing the line through the points A(1,4) and B(4,2). Now, translate the line by the vector [3,1].



1. What are the coordinates of A’ and B’?
2. What do you notice about the line AB and its image A’B’?
3. If the direction of the vector was opposite, would this hold true? Explain your reasoning.
4. What happens if you translate the original line AB by a different vector?
5. What would the vector have to be in order to make the original line and its image coincide?

7. 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?

