1. Draw pictures and give an accompanying written explanation to show that if \( F : \mathbb{R} \to \mathbb{R} \) is a reflection, then \( FF = I \).

*Hint:* You should draw at least three pictures, at least two of which show that this is true for a specific reflection (such as the reflection across the point 1). The last picture should show that this is true for a reflection across a point \( p \), which you can draw at some arbitrary nondescript point on \( \mathbb{R} \).

In the first pictures, you should show and explain what \( F \) and \( FF \) do to at least two or three points (including the point that you are reflecting across). In the last picture, you should show and explain what \( F \) and \( FF \) do to an arbitrary point, labeled \( x \).