MATH 403 FALL 2021: QUIZ 10 SOLUTION
DATE: DEC 1, 2021

Fill in the blanks.

(a) (3 points) Every isometry can be written as the composition of **a translation**

and **a linear isometry**.

(b) (3 points) Let α be an isometry and X, Y be two distinct fixed points of α.

Then, every point on ℓ_{XY} is a fixed point.

(c) (4 points) A bijective map α is called an involution

if it is not **the identity** and satisfies $\alpha^2 = \mathrm{Id}$.