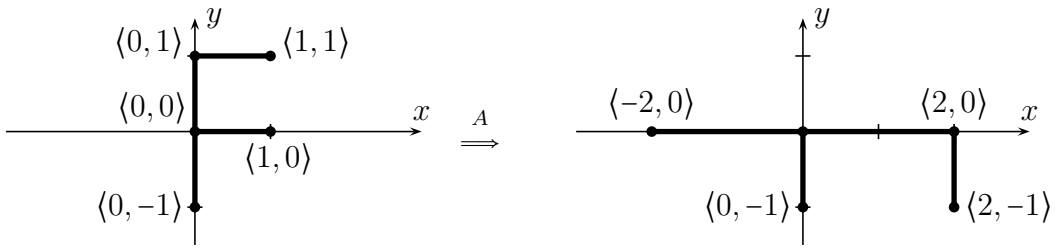
Math 155A - Fall 2022 - Quiz #2 - September 29

Name:

PID:

1. A transformation $A : \mathbb{R}^2 \to \mathbb{R}^2$ transforms the "F" in standard position as shown below. Give a 2×2 matrix that represents A.



2. A transformation $A : \mathbb{R}^2 \to \mathbb{R}^2$ is defined by $A(\langle x, y \rangle) = \langle -y, y - x \rangle$.

(a) Give the 2×2 matrix M that represents A.

(b) On the axes below, draw how the "F" in standard position is transformed by A. (The tick marks on the axes indicate where x, y are equal to −2, −1, 1, 2.)