The “F” in standard position is as shown to the right. For each of (a)-(c) draw \(xy\)-axes and a transformed \(F\)-shape, and label enough points so as to make it clear what the image is.

(a) Let \(A : \mathbb{R}^2 \to \mathbb{R}^2\) be the linear map defined by \(A((x, y)) = (-y, -x)\). Draw the image of the standard “F”-shape under the mapping \(A\).

(b) Let \(B : \mathbb{R}^2 \to \mathbb{R}^2\) be the linear map defined by \(B((x_1, x_2)) = (x_1, x_2 - x_1)\). Draw the image of the standard “F”-shape under the mapping \(B\).

(c) Let \(C : \mathbb{R}^2 \to \mathbb{R}^2\) be the affine map defined by \(C((x, y)) = (-y + 1, -x + 1)\). Draw the image of the standard “F”-shape under the mapping \(C\).