

Name:

Problem 1: Consider the map

$$f: \mathcal{P}_1 \rightarrow \mathbb{R}^2$$

given by

$$f(a + bx) = \begin{pmatrix} a - b \\ b \end{pmatrix}.$$

Find the image of each of the following elements:

a) $3 - 2x$

b) $2 + 2x$

c) x