1. Consider the matrix $A = \begin{pmatrix} -2 & -1 \\ 5 & 2 \end{pmatrix}$. Which of the following is true?

(A) A has just one eigenvalue.

(B) A has two distinct real eigenvalues.

(C) A has two distinct complex eigenvalues.

2. Consider the linear transformation $d/dx : \mathcal{P}_3 \to \mathcal{P}_3$. How many disinct eigenvalues does this linear transformation have?

(A) 1

(B) 2

(C) 3

(D) 4