Quiz 1: Matrix Operations

You will have 2-3 minutes to answer these on your own. Then your team will have 5-6 minutes to answer them as a team.

Your individiual grade, out of ten points, includes 1 point for being present and 1.5 points for each correct answer (individual or team).

1. For the following three questions, select A for yes, B for no, or C if you really have no idea.

(a) Every matrix satisfies $A = A^T$.

(b) This is true:

$$\begin{bmatrix} 1 & 2 & 0 \\ -1 & \pi & \frac{1}{2} \end{bmatrix} \begin{bmatrix} \sqrt{2} \\ \sqrt{3} \\ 2 \end{bmatrix} = \sqrt{2} \begin{bmatrix} 1 \\ -1 \end{bmatrix} + \sqrt{3} \begin{bmatrix} 2 \\ \pi \end{bmatrix} + 2 \begin{bmatrix} 0 \\ \frac{1}{2} \end{bmatrix}$$

(c) The additive inverse of $\begin{bmatrix} 1 & 2 & 0 \\ -1 & \pi & \frac{1}{2} \end{bmatrix}$ is $\begin{bmatrix} -1 & -2 & 0 \\ 1 & -\pi & -\frac{1}{2} \end{bmatrix}$