

SECTION 2.7 PROBLEM SET 2

7.8 Write a matrix with the following property or explain why no such matrix exists.

- (a) Column space contains $(1, 0, 0)^T, (0, 0, 1)^T$, row space contains $(1, 1)^T, (1, 2)^T$.
- (b) Column space is spanned by $(1, 1, 1)^T$, nullspace is spanned by $(1, 2, 3)^T$.
- (c) Column space is \mathbb{R}^4 , row space is \mathbb{R}^3 .

7.9 If A has the same four fundamental subspaces as B , does $A = B$?