

# Homework 1

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## Abstract

Some problems in Linear Algebra

- Solve from Boas. Ch 3, page 88, problems 11.
- Solve from Boas. Ch 3, page 95, problems 9 & 10.
- Solve from Boas. Ch 3, page 141, problem 3.
- Consider the matrix

$$A(\theta) = \begin{pmatrix} \cos \theta & \sin \theta \\ -\sin \theta & \cos \theta \end{pmatrix}$$

Verify that  $A(\theta_1)A(\theta_2) = A(\theta_1 + \theta_2)$  Verify that  $A\tilde{A} = \tilde{A}A = I$  and calculate  $A^{-1}$