

MATH 10B, SPRING 2017, QUIZ 11

(1) Compute the following quantities or briefly explain why they are undefined.

$$A = \begin{bmatrix} 1 & -3 \\ -2 & 6 \end{bmatrix} \quad B = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$$

(a) AB

(b) A^{-1}

(c) B^{-1}

(d) $A + B$

(e) BA

(f) B^T

(2) Find all solutions of the following system of linear equations:

$$\begin{aligned} 3x_1 + 6x_2 + 3x_3 &= -3 \\ 5x_1 - 3x_2 + 18x_3 &= 8 \\ 7x_1 + 2x_2 + 13x_3 &= 5 \end{aligned}$$