

Name:

1. Find all solutions to the following system of equations.

$$x + z = 6$$

$$w - x + y = 0$$

$$2w - 3x - z = 1$$

2. Let $A = \begin{pmatrix} 2 & 1 \\ 1 & -1 \end{pmatrix}$ and $B = \begin{pmatrix} 2 & 0 & 3 \\ 0 & -1 & -2 \end{pmatrix}$.

(a) Is AB defined? If so, compute it.

(b) Is BA defined? If so, compute it.