Precal Spring 2022: Quiz #2

Name: _____

March 21, 2022

1. Use matrices A and B below:

$A =$
$$\begin{bmatrix} 5 & -2 & 0 \\ 0 & 3 & 1 \\ 2 & 3 & 1 \end{bmatrix}$$

$B =$
$$\begin{bmatrix} 3 & 1 & 1 \\ 1 & -2 & 1 \\ 1 & 1 & 2 \end{bmatrix}$$

Find the value of $(2A \times B) - B$:

2. Assume A is a 3 matrix and B is a 2×4 matrix.

(a) Can you add A and B? Explain why or why not in a complete sentence.

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(b) Can you multiply A and B? Explain why or why not in a complete sentence.

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endparts

(c) Solve the system of linear equations to the right.

$$\begin{cases} 7x - 5y = -2 \\ -4x + 3y = 1 \end{cases}$$

Be sure to:

i. Convert to $AX = B$
ii. Find $A^{-}1$
iii. Solve for variables using $X = A^{-1}B$
iv. show all work!

You can use this space for extra work!