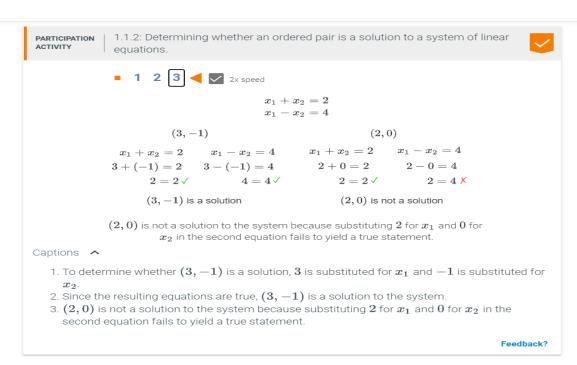
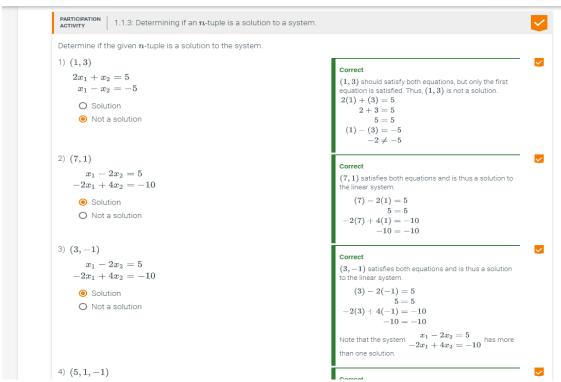
Ramesh Koirala

HW 0.0 9/13/20

Section: 003





4)
$$(5,1,-1)$$

$$egin{array}{l} x_1+x_2-x_3=7 \ 4x_1+x_2-3x_3=-2 \ x_1-3x_2+x_3=1 \end{array}$$

- O Solution
- Not a solution

5)
$$(5,1,-1)$$

$$egin{array}{l} x_1+x_2-x_3=7 \ x_1-x_2+x_3=3 \ x_1-3x_2+x_3=1 \end{array}$$

- Solution
- O Not a solution

6)
$$(1, -4, 8, -2)$$

$$x_1 + x_2 + x_3 + x_4 = 3$$
$$2x_2 + x_3 = 0$$
$$x_3 + 4x_4 = 0$$
$$x_4 = -2$$

- Solution
- O Not a solution

than one solution.

Correct

The solution to a system of three equations should satisfy all three equations. However, (5,1,-1) only satisfies the first and third equations. Thus, (5,1,-1) is

Correct

(5,1,-1) satisfies all three equations and is thus a solution to the linear system.

A system of linear equations may contain more than three variables and equations. The solution is a 4-tuple, which satisfies each of the four equations. Thus, (1,-4,8,-2) is a solution to the system.

Feedback?

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PARTICIPATION ACTIVITY

1.2.6: Finding a transpose.



- 1) The transpose of a 2×4 matrix is a 4×2 matrix.
 - True
 - O False

2) The transpose of
$$A = \begin{bmatrix} 1 & 0 & 3 \\ 0 & -2 & 6 \\ 5 & 4 & 2 \end{bmatrix}$$
 is $A^T = \begin{bmatrix} 5 & 4 & 2 \\ 0 & -2 & 6 \\ 1 & 0 & 3 \end{bmatrix}$

- O True
- False

3) The transpose of
$$A=\begin{bmatrix}1&0&0&0\\0&1&0&0\\0&0&1&0\end{bmatrix}$$
 is
$$A^T=\begin{bmatrix}1&0&0&0\\0&1&0&0\\0&0&1&0\end{bmatrix}.$$

- O True
- False

Correct

Since the transpose is found by switching the rows and columns of a matrix, the transpose of a 2 imes 4 matrix is a 4 imes 2 matrix.

Correct

The transpose is found by switching the rows and columns of a matrix.

$$A^T = \begin{bmatrix} 1 & 0 & 5 \\ 0 & -2 & 4 \\ 3 & 6 & 2 \end{bmatrix}$$

Correct

The matrix A is not the identity matrix, so $I_n^T = I_n$ does

$$A^T = egin{bmatrix} 1 & 0 & 0 \ 0 & 1 & 0 \ 0 & 0 & 1 \ 0 & 0 & 0 \end{bmatrix}$$

Feedback?