

+340 pts
/1000

Resources

Solution
Penalized

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< Question 4 of 10 >

Attempt 3 ▼

Convert the given system to an augmented matrix.

$$\begin{aligned} 2x_1 + x_2 &= 7 \\ -x_1 - x_2 - x_3 &= 4 \end{aligned}$$

- ☒ $\left[\begin{array}{ccc|c} 2 & 1 & 7 & 0 \\ -1 & -1 & -1 & 4 \end{array} \right]$
- ☐ $\left[\begin{array}{ccc|c} 2 & 1 & 0 & 7 \\ -1 & -1 & -1 & 4 \end{array} \right]$
- ☐ $\left[\begin{array}{ccc|c} 2 & 2 & 0 & 4 \\ -1 & -1 & -1 & 7 \end{array} \right]$
- ☐ $\left[\begin{array}{ccc|c} 2 & 2 & 4 & 0 \\ -1 & -1 & -1 & 7 \end{array} \right]$

Find all solutions by reducing the system to echelon form and back substituting.

(Give your answer in the form $(*,*,*)$. Express numbers in exact form. Use symbolic notation and fractions where needed. Enter NO SOLUTION if the system cannot be solved. Express x_1 , x_2 , and x_3 in terms of s_1 and s_2 if the system has infinitely many solutions.)

$$(x_1, x_2, x_3) = \left(s_1 + 11, -15 - 2s_1, s_1 \right)$$

