

(1) Let W_1 be the set: $\left\{ \begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix}, \begin{bmatrix} 1 \\ 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix} \right\}$. Determine if W_1 is a basis for \mathbb{R}^3 and

check the correct answer(s) below.

A. W_1 is not a basis because it does not span \mathbb{R}^3 .

B. W_1 is not a basis because it is linearly dependent.

C. W_1 is a basis.

(2) Let W_2 be the set: $\left\{ \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix}, \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}, \begin{bmatrix} 0 \\ 1 \\ 0 \end{bmatrix} \right\}$. Determine if W_2 is a basis for \mathbb{R}^3 and

check the correct answer(s) below.

A. W_2 is not a basis because it is linearly dependent.

B. W_2 is not a basis because it does not span \mathbb{R}^3 .

C. W_2 is a basis.

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