Solve this system for x: $\begin{cases} 3x - 5y = -12 \\ 6x + 8y = -24 \end{cases}$

A. 4   B. 2   C. 0   D. –1   E. –4

Last Week's Answer

A rectangle has a length that is 9 feet longer than it is wide. If the area of the rectangle is 90 square feet, find the length.

A. 6 ft   B. 10 ft   C. 14 ft   D. 15 ft   E. 18 ft

Solution:

$\text{let } w = \text{width}$
$w + 9 = \text{length}$

$\text{length} \cdot \text{width} = \text{area}$
$(w + 9)(w) = 90$
$w^2 + 9w = 90$
$w^2 + 9w - 90 = 0$
$(w - 6)(w + 15) = 0$
$w = 6 \text{ or } w = -15$

Since the width of the rectangle must be a positive measure, -15 is excluded.
Therefore, $\text{length} = w + 9 = 6 + 9 = 15 \text{ feet}$

Each week, we'll reveal the answer to the previous week's question!

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