Question 26
Mar, 2, 2026

NC EMPT'S QUESTION of the week

26. When x = −3, find the value of this expression: $5\sqrt{x+3} - 2 \cdot \frac{x-3}{x-3}$

A. −3 B. −2 C. 2 D. 3 E. The value is undefined

Last Week's Answer

25. If the coordinates of one endpoint of a line segment are (3, −4) and the midpoint of the segment has coordinates (−1,2) , what are the coordinates of the other endpoint of the segment?

A. (7, −10) B. (−2,3) C. (1, −1) D. (2, −3) E. (− 5,8)

Solution: Let x and y represent the coordinates of the unknown endpoint. The midpoint of a segment formula indicates that to find the coordinates of the midpoint, the x – coordinates of the two endpoints must be averaged and, likewise, the y – coordinates of the two endpoints must be averaged. See the two equations that involve these averages below:

Endpoints of segment are (x ,y) and (3, −4). Midpoint is (−1,2).

$$\frac{x+3}{2} = -1 \quad \text{and} \quad \frac{y+(-4)}{2} = 2$$
$$x+3 = -2 \qquad\qquad y-4 = 4$$
$$x = -5 \qquad\qquad y = 8$$

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

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