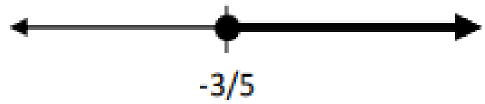
NC EMPT'S QUESTION of the week

Question 22
Feb 2, 2026

22. Given:



This is an illustration of the solution set for which inequality below?

A. $-5x \leq 3$ B. $-5x > 3$ C. $5x \leq -3$ D. $5x > -3$ E. $-5x \geq -3$

Last Week's Answer

21. If the zeros of a quadratic function are -5 and 3, one possible quadratic function having these zeros is:

A. $f(x) = (x-5)(x+3)$ B. $f(x) = x^2 - 2x - 15$ C. $f(x) = 2x^2 - 4x - 30$

D. $f(x) = x^2 + 2x - 15$ E. $f(x) = x^3 + 2x^2 - 15x$

Solution 1:
One method of solving a quadratic equation is to set the equation =0, factor the polynomial, set each factor =0, and then solve for x. Since you are given the two zeros, or solutions, in this problem, x 2 work in reverse to find the equation:

$x = -5$ $x = 3$

$x + 5 = 0$ $x - 3 = 0$

$(x+5)(x-3) = 0$

$x^2 + 2x - 15 = 0$

Solution 2:
Use this formula if given the 2 roots of a quadratic eq:

$x^2 - (sum\ of\ roots) \cdot x + (product\ of\ roots) = 0$

$x^2 - (-5+3)x\ (-5)(3) = 0$

$x^2 - (-2)x + (-15) = 0$

$x^2 + 2x - 15 = 0$

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