Question

Say true or false.

The graph of the function, $y = x + |x|$ for all x € Q is strictly increasing .

Solution

Definition: function y(x) is strictly increasing if $y(x_1) < y(x_2)$ $for\ all\ x_1 < x_2$

But, $for\ all\ x_1 < x_2 < 0, y(x_1) = y(x_2) = 0$, hence the function is not strictly increasing.

Answer:

Statement "The graph of the function, $y = x + |x|$ for all x € Q is strictly increasing." is false.