

Question #85027, Math / Calculus

$$\int_{-1}^2 |x| dx = 3/2.$$

Is the statement true or false? Give a short proof or a counter example in support of your answer.

Solution

No. Since

$$\int_{-1}^2 |x| dx = \int_0^2 x dx - \int_{-1}^0 x dx = 2 + \frac{1}{2} = \frac{5}{2}$$