

Answer on Question #58219 – Math – Trigonometry

Question

The sine function is an odd function:

A: True.

B: False.

Solution

An odd function has the following property:

if $x \in D$ then $-x \in D$, where $D = \mathbb{R}$ is the domain of the function, and for all $x \in \mathbb{R}$:

$$f(-x) = -f(x).$$

It holds true that

$\forall x \in \mathbb{R}$:

$$\sin(x) = -\sin(x).$$

So $\sin(x)$ is an odd function.

Answer: A: True.