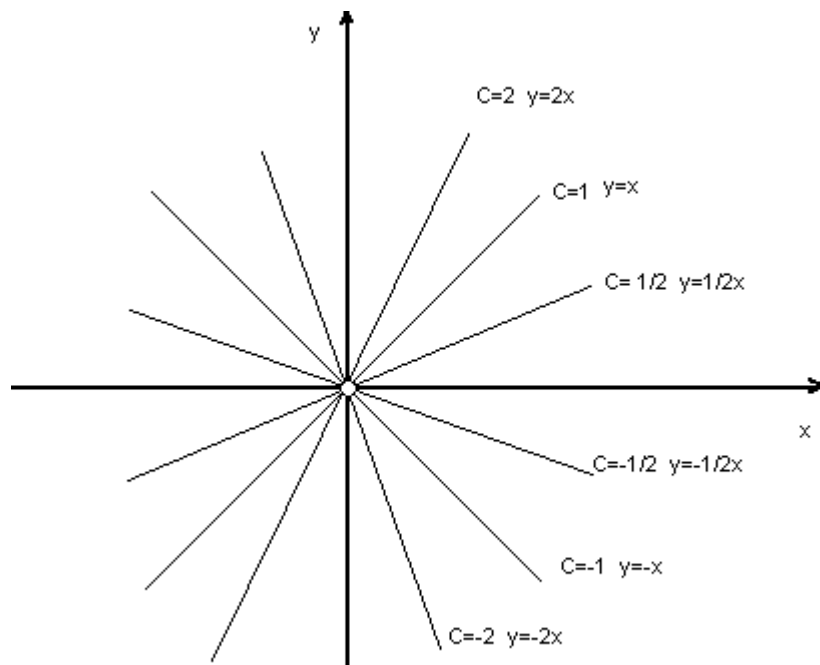**Question**

True/false. justify your answer. The level curves of z = y / x are hyperbolas.

Solution

The level curves of $z = \dfrac{y}{x}$ are not hyperbolas.

The level curves of $z = \dfrac{y}{x}$ are straight lines $y = Cx$ for each $x \neq 0$, where C is a real number.

Answer: FALSE.