

Answer on Question #85695 – Math – Calculus

Question

The range of the function $f(x) = e^{-x}/(1+x)$ on $]0, \text{inf.}[$ is $]-\text{inf.}, 0[$.
Is the statement true or false? Give reason in support of your answer.

Solution

For these values of x , both the numerator and the denominator functions, i.e. e^{-x} and $1+x$, are strictly positive.

Therefore the range of the function is a subset of $]0, \text{inf.}[$.

Answer:

The statement is false.