## Given that,

## f(x)=10^x

## Thus, f(x+h)=10^(x+h)=10^x⋅10^h

## So, f(x+h)−f(x):

## = 10^x⋅10^h - 10^x

## =10^x(10^h -1)

## Again,

## {f(x+h)−f(x)}/h = {10^x(10^h−1)}/h

## =10^x

Thus, LHS=RHS