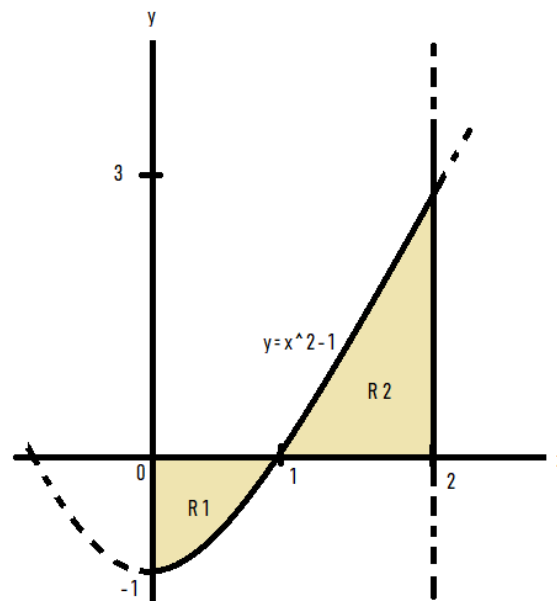*By: Amulya Baniya*



For R1, upper function is $f(x) = 0$ and lower function is
$g(x) = x^2 - 1$ and $x \in [0, 1]$

For R2, upper function is $f(x) = x^2 - 1$ and lower function is
$g(x) = 0$ and $x \in [1, 2]$.