Consider the function $f(x) = 1 - x^2$ over the interval $[0, 1]$.

a). Find a formula for the Riemann sum obtained by dividing the interval $[0, 1]$ into $n$ equal subintervals and using the right-hand endpoint rule.

b). Do the same, but with $2n$ subintervals and the left-hand endpoint rule.

c). Take a limit of the sums found in part (a) and (b) as $n \to \infty$ to calculate the area under the curve over $[0, 1]$.