

Integration of Piecewise Continuous Functions.

Any function $f(x)$ which is discontinuous at finite number of points in an interval $[a, b]$ can be made continuous in sub-intervals by breaking the intervals into these subintervals. If $f(x)$ is discontinuous at points $x_1, x_2, x_3, \dots, x_n$ in (a, b) , then we can define subintervals $(a, x_1), (x_1, x_2), \dots, (x_{n-1}, x_n), (x_n, b)$ such that $f(x)$ is continuous in each of these subintervals. Such functions are called piecewise continuous functions. For integration of Piecewise continuous function. We integrate $f(x)$ in these sub-intervals and finally add all the values.