

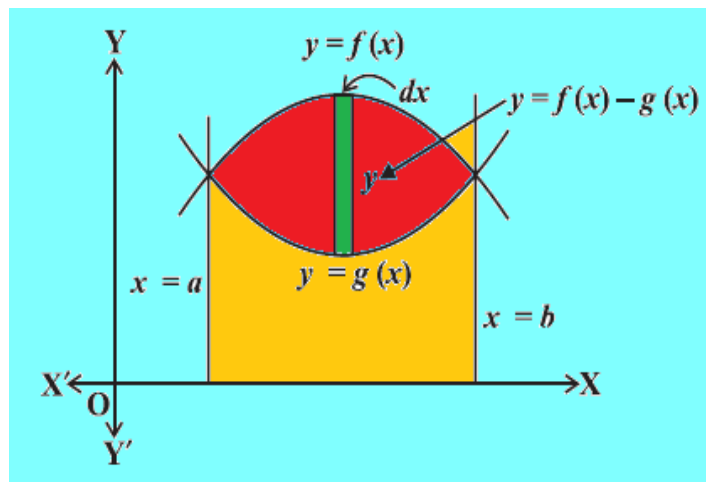
ATOMIC ENERGY EDUCATION SOCIETY, MUMBAI

CLASS: XII (MATHS)  
CHAPTER-8

HANDOUT: MODULE- 2/2  
TOPIC: APPLICATIONS OF INTEGRATION

- The area of the region enclosed between two curves  $y = f(x)$ ,  $y = g(x)$  and the lines  $x = a$ ,  $x = b$  is given by the formula.

$$\text{Area} = \int_a^b [f(x) - g(x)] dx, \text{ where } f(x) \leq g(x) \text{ in } [a, b]$$



- If  $f(x) \geq g(x)$  in  $[a, c]$  and  $f(x) \leq g(x)$  in  $[c, b]$ ,  $a < c < b$ , then

$$\text{Area} = \int_a^c [f(x) - g(x)] dx + \int_c^b [g(x) - f(x)] dx$$

