MATHS

BOOKS - JMD MATHS (PUNJABI ENGLISH)

APPLICATION OF INTEGRATION

Example

1. Sketch the graph y = |x + 1|. Evaluate $\int_{-4}^{2}$ | x + 1|dx.

What does the value of this integral represent on the graph ?

2. Find the area of the region included between the parabola y^2 = x and the line x + y = 2.

3. Find the area of that part of the circle $x^2 + y^2 = 16$ which is exterior to the parabola $y^2 = 6x$.

▶ Watch Video Solution

4. Using intergration, find the area of the region:

$$\{(x, y) : 25x^2 + 9y^2 \leq 225, 5x + 3y \geq 15\}$$

▶ Watch Video Solution

5. Using intergration, find the area bounded by the lines :

$2x + y = 4$, $3x - 2y = 6$ and $x - 3y + 5 = 0$

6. Using integration, find the area bounded by the triangle whose vertices are (-1, 0), (1,3) and (3,2).

7. Find the area bounded by curves $(x - 1)^2 + y^2 = 1$ and $x^2 + y^2 = 1$.