

WORKSHEET-3 (HOTS)
CLASS-XII
CHAPTER-INDEFINITE INTEGRALS
MATHEMATICS

1. Evaluate $\int \frac{dx}{(1+\sqrt{x})\sqrt{x-x^2}}$

2. Evaluate $\int \cos 2\theta \log \left[\frac{\cos \theta + \sin \theta}{\cos \theta - \sin \theta} \right] d\theta$

3. Evaluate $\int \sqrt{\frac{\cos x - \cos^3 x}{1 - \cos^3 x}} dx$

4. Evaluate $\int \frac{(x-1)dx}{(x+1)\sqrt{x^3+x^2+x}}$

5. Evaluate $\int \sin 4x \cdot e^{\tan^2 x} dx$

6. Evaluate $\int \frac{dx}{\sin^3 x + \cos^3 x}$

7. Evaluate $\int \frac{\sqrt{\cos 2x}}{\sin x} dx$

8. Evaluate $\int e^{\tan x} \cdot (\sec x - \sin x) dx$

9. Evaluate $\int \sqrt{\frac{1-\sqrt{x}}{1+\sqrt{x}}} dx$

10. Evaluate $\int \frac{dx}{\tan x + \cot x + \sec x + \operatorname{cosec} x}$