

Centum Preparation 100 Days plan class 12 Maths

Q.N o.	DAY - 62
385	<p>2. Evaluate the following integrals using properties of integration</p> <p>(x) $\int_{\frac{\pi}{8}}^{\frac{3\pi}{8}} \frac{1}{1 + \sqrt{\tan x}} dx$</p>
386	<p>2. Evaluate the following integrals using properties of integration</p> <p>(xi) $\int_0^{\pi} x [\sin^2(\sin x) + \cos^2(\cos x)] dx$</p>
387	<p>Example 9.36</p> <p>Evaluate $\int_0^{\frac{\pi}{2}} \frac{dx}{4\sin^2 x + 5\cos^2 x}$.</p>
388	<p>Example 9.37</p> <p>Evaluate $\int_0^{\frac{\pi}{2}} (\sin^2 x + \cos^4 x) dx$</p>
389	<p>Example 9.39</p> <p>Find the values of the following:</p> <p>(i) $\int_0^{\frac{\pi}{2}} \sin^5 x \cos^4 x dx$ (ii) $\int_0^{\frac{\pi}{2}} \sin^4 x \cos^6 x dx$</p>
390	<p>Example 9.40</p> <p>Evaluate $\int_0^{2a} x^2 \sqrt{2ax - x^2} dx$.</p>
391	<p>Example 9.41</p> <p>Evaluate $\int_0^1 x^5 (1 - x^2)^5 dx$.</p>