

Q1. Evaluate  $\int_0^{\pi/2} 2^{\cos x} \sin x \, dx$

Q2. Find  $\int_0^4 f(x) \, dx$ , if  $f$  is an even function and  $\int_{-1}^1 f(x) \, dx = 6$  and  $\int_{-1}^4 f(x) \, dx = 10$ .

Q1. Evaluate  $\int_0^{\sqrt{3}} \frac{x^3}{\sqrt{x^2+1}} dx$

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Q2. If  $f$  is continuous and  $\int_2^1 (1+f(x)) dx = \int_2^4 (f(x)-x) dx$ , find  $\int_1^4 f(x) dx$

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