

Integrals

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Example 1:

$$\int_0^{\frac{\pi}{2}} \cos x + 5^x = \sin x + \frac{5x^2}{2} \quad (1)$$

Example 2:

$$\int_0^{\frac{\pi}{4}} \frac{4}{\cos^2 x} + \frac{1}{\pi} = 4 \tan x + \frac{1}{\pi} x \quad (2)$$

Example 3:

$$\int_0^{\frac{\pi}{4}} = \left(4 \tan \frac{\pi}{4} + \frac{1}{\pi}\right) - \left(4 \tan 0 + \frac{1}{\pi} 0\right) = \frac{17}{4} \quad (3)$$