

*Evaluate the integral:*

(1)  $\int x^2 e^{-x^3} dx$

(10)  $\int x e^x dx$

(2)  $\int \frac{x}{1+x^2} dx$

(11)  $\int \ln x dx$

(3)  $\int \frac{1}{1+x^2} dx$

(12)  $\int \cot x dx$

(4)  $\int \frac{1}{1+4x^2} dx$

(13)  $\int x \ln x dx$

(5)  $\int \frac{1}{1+2x^2} dx$

(14)  $\int x \cos x dx$

(6)  $\int \frac{x+1}{x^2} dx$

(15)  $\int \tan^{-1}(x) dx$

(7)  $\int (x-2)(x-3) dx$

(16)  $\int \sin^{-1}(x) dx$

(8)  $\int \sin x \sqrt{1-\cos x} dx$

(17)  $\int e^x \cos x dx$

(9)  $\int \tan x dx$

(18)  $\int x^5 \sqrt[3]{1+x^3} dx$

$$(19) \int \frac{e^x}{2+e^x} dx$$

$$(25) \int \sin^2 x \cos x dx$$

$$(20) \int \frac{\cos x - \sin x}{\sin x + \cos x} dx$$

$$(26) \int \sin x \cos^2 x dx$$

$$(21) \int \sin^2 x dx$$

$$(27) \int \sin^3 x \cos^2 x dx$$

$$(22) \int \cos^2 x dx$$

$$(28) \int \sin^3 x \cos^4 x dx$$

$$(23) \int \tan^2 x dx$$

$$(29) \int \sin^7 x \cos^3 x dx$$

$$(24) \int \sin x \cos x dx$$

$$(30) \int \sec x dx$$