

1. Evaluate the following indefinite integrals.

$$(a) \int dx$$

$$(b) \int x^r dx \quad (r \neq -1)$$

$$(c) \int \frac{1}{x} dx$$

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

$$(e) \int \sin x dx$$

$$(f) \int \sec^2 x dx$$

$$(g) \int \csc^2 x dx$$

$$(h) \int \sec x \tan x dx$$

$$(i) \int \csc x \cot x dx$$

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

$$(k) \int b^x dx \quad (0 < b, b \neq 1)$$

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

$$(m) \int \frac{1}{\sqrt{1-x^2}} dx$$

$$(n) \int \frac{1}{x\sqrt{x^2-1}} dx$$