

# MEMORIAL UNIVERSITY OF NEWFOUNDLAND

## DEPARTMENT OF MATHEMATICS AND STATISTICS

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SECTION 1.3

Math 1001 Worksheet

WINTER 2024

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**For practice only. Not to be submitted.**

1. Evaluate each indefinite integral.

(a)  $\int \frac{1}{\sqrt{9 - 36x^2}} dx$

(b)  $\int \frac{1}{-9x^2 - 2} dx$

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

(d)  $\int \frac{\sin(\theta)}{\cos^2(\theta) + 4} d\theta$

(e)  $\int \frac{1}{x\sqrt{81x^2 - 49}} dx$

(f)  $\int \frac{1}{\frac{1}{9}x^2 - 4x + 40} dx$

(g)  $\int \frac{e^{2x}}{\sqrt{-e^{4x} - 10e^{2x} - 24}} dx$

(h)  $\int \frac{9x - 6}{\sqrt{1 - 25x^2}} dx$

(i)  $\int \frac{2x}{4x^4 + 4x^2 + 17} dx$