

(7.3) Trigonometric Substitution

Full Name: _____

1. Use the method of trigonometric substitution to evaluate each of the following indefinite integrals.

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

(b) $\int \frac{1}{\sqrt{16+x^2}} dx$

(c) $\int \frac{x^5}{\sqrt{x^2+4}} dx$

(d) $\int x^2 \sqrt{9 - x^2} dx$

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