

Math 136: Calculus 2

Spring 2017

Professor Levandosky

Written Homework 5

1. Use a trigonometric substitution to evaluate the following.

(a) $\int (9 - x^2)^{3/2} dx$

(b) $\int \frac{x^2}{(16 + x^2)^{3/2}} dx$

(c) $\int \sqrt{x^2 - 4} dx$

2. Use partial fractions to evaluate the following.

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

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

(c) $\int \frac{x}{x^3 - 1} dx$