

MATH 131: ASSIGNMENT 4

Introduction to derivatives

Book reference: Section 2.2

Complete the following problems from the text. Notice that the instructions “using (2.1) or (2.2)” just mean to compute using limits.

- Section 2.2, Problems 5 - 12.

Exercise 4.1. For each function below you need to (i) compute the derivative and (ii) sketch a plot of both the function and its derivative.

(1) $f(x) = 2x^2 - 31$

(3) $f(t) = \frac{3}{\sqrt{t+5}}$

(2) $f(t) = \frac{3}{t+5}$

(4) $f(x) = \frac{x}{x+1}$