Assignment 6

Oral questions

1. Exercise 28.2 cd

2. Exercise 28.4 bc

3. Exercise 28.6

4. Exercise 28.8

5. Exercise 28.10

6. Exercise 28.12

7. Determine where each of the following functions from $\mathbb{R}$ to $\mathbb{R}$ has a derivative and find the derivative

    (a) $f(x) = x \cdot |x|$ (b) $g(x) = x + |x|$.

Question to be answered in writing

1. Suppose that $f : \mathbb{R} \to \mathbb{R}$ is differentiable at c and $f(c) = 0$. Show that $g(x) = |f(x)|$ is differentiable at c if and only of $f'(c) = 0$.