Quiz 2

Honor Code: On my honor, I have neither given nor received any aid during this examination.
Instruction: You are not allowed to use a calculator during this examination. You need to show all necessary steps to get credit. This document is **double-sided**.

Name: _____

Problem 1

Evaluate derivative of the following functions.

(a). $f(t) = t^2 \cdot \sec(t)$

(b). $g(\theta) = \sin(\tan(2\theta))$

(c). $f(x) = \dfrac{x}{\sqrt{6-4x}}$ (Hint: You can take it step-by-step. Figure out what is the derivative of $\sqrt{6-4x}$ first.)

Problem 2

Recall the derivative is the **slope** of tangent line. Given

$$f(x) = \cos(x) - \sin(x),$$

find the tangent line to $f(x)$ at $(\pi, -1)$.