Problem 1. Let \( \theta \in [\pi/2, \pi] \) be an angle.

(a) Suppose that \( \sin \theta = 8/17 \). Compute the value of the five other trigonometric functions.

(b) Explain why \( \sin^{-1}(\sin \theta) \neq \theta \). Hint: don’t try to compute \( \theta \).

Problem 2. Consider the function \( f(x) = 2x - 4 \).

(a) What is the average rate of change from \( x = 3 \) to \( x = 5 \)? From \( x = 3 \) to \( x = 3.5 \)?

(b) What do you think is the instantaneous rate of change at \( x = 3 \)? Justify your guess.