1. Find the rate of change of \( f(x) = 2x^3 - x + 5 \) at \( x = -3 \). Use any methods from Chapter 2. Numerical approximation and/or guesses are acceptable if they are supported by an appropriate table of secant slopes. (Appropriate means at least two secants on each side of \(-3\) and sufficient decimal precision.)

2. The voltage in a circuit is measured by the function

\[
V(t) = 2 \cos \left( \frac{\pi t}{4} - \frac{\pi}{2} \right)
\]

where \( t \) is measured in seconds and \( V \) is measured in Volts.

(a) Graph \( V(t) \) on the domain \( 0 \leq t \leq 12 \) seconds. Be sure to label your graph correctly.

(b) Find the rate of change of \( V \) (with units) on each of the intervals:

i. \([5, 8]\]

ii. \([7, 8]\]

iii. \([8, 9]\]

iv. \([8, 11]\]

v. For each interval, sketch the secant line that corresponds to your rate of change. Your grade will depend in part on consistency.