

Math 135, Calculus 1, Fall 2020

Weekly Quiz 09-16

Question 1. (1) Find all values of θ between 0 and 2π such that $\csc(\theta) = 2$.

(2) Compute $\sin^{-1}(1/2)$.

Question 2. The population of bacteria on some petri dish as a function of time (in minutes) is given by

$$Q(t) = 400 \cdot 3^{t/45}.$$

(1) How long does it take the population to triple? Given an exact value (no decimal approximation; can use algebraic or transcendental functions).

(2) How long does it take for the population to double? Given an exact value.