

MTH 3311 – Test #2 - Part #2

DUE - 11:59 PM; APRIL 6, 2020

Pat Rossi

Name _____

Directions: Show CLEARLY how you arrive at your answers.

1. The force of water resistance acting on a boat is proportional to its instantaneous velocity, and is such that at $30 \frac{\text{ft}}{\text{sec}}$ the water resistance is 60 lb. If the boat and passenger combined weigh 480 lb, and if the motor exerts a steady force of 90 lb in the direction of the motion:
 - (a) Find the velocity at any time $t \geq 0$, assuming that the boat starts from rest.
 - (b) Find the limiting velocity