MAT 17B, Fall 2020
Homework 2
Due before 4:10 PM on Wednesday, October 14

Please write the homework solutions in connected sentences and explain your work. Mark the answers to each question. Scan or take pictures of your homework and upload it to Gradescope before due time.

1. (10 points) Compute the integral $\int_0^{18} \sqrt{\frac{3}{z}} dz$.

2. (10 points) Many fish grow in a way that is described by the von Bertalanffy growth equation. For a fish that starts life with a length of 1 cm and has a maximum length of 30 cm, this equation predicts that the growth rate is $29e^{-a}$ cm/year, where a is the age of the fish. How long will the fish be after 5 years?

3. (10 points) Compute the integral $\int x^2(x^3+5)^9 dx$ using u-substitution.