MATH 4334.001/CS 4334.001 Name : ----------
Fall 2023
Computer Homework 2
Due 09/20/2023

Write MATLAB codes to solve the following problems. Your solution should include the source code, the relevant output, and a written explananation of what the output means.

1. Evaluate the function
$$f(x) = \frac{1-(1-x)^3}{x}$$
for $x = 10^{-1}, \ldots, 10^{-14}$. Then, using an alternative form of expression for $f(x)$ that avoids significance loss, repeat the same calculation and make a table of all the results obtained.

2. Consider a right triangle whose legs are of length 3344556600 and 1.2222222. How much longer is the hypotenuse than the longer leg? Give your answer with at least four correct digits.