COSC 1000: First Project

Due: Feb. 28, 2021
Format: .py file(s) in a dropbox with your name as comment on the top line

Create a Python script that do the following:

1. Calculate $\dfrac{1}{1} + \dfrac{1}{2} + \dfrac{1}{3} + \dfrac{1}{4} + \ldots + \dfrac{1}{100}$. (Hint: The answer starts out with 5.18737)

2. Assume that a tax-exempt retirement account pays an interest of 5% annually, compounded monthly. Each month, the user pays in 150.00 dollars. What is the accrued sum of the account after each month?

3. A sequence is defined by $a(1) = 5$, $a(i + 1) = \sqrt{a(i)} + 1$. Calculate $a(100)$.