Suppose your aunt opens a bank account for you and deposits \$20 into it at the beginning of the semester.

a) She says that if you have a grade at or above a C in MATH 1643 after the first week of the semester, she will deposit an additional \$5. By what percentage did the account balance increase from the beginning of the semester to the end of week one?

b) Suppose you and your aunt make a deal that if you continue to have a grade at or above a C in MATH 1643, each week she will make a deposit equal to 25% of the account balance. Find the account balance each week for the first five weeks of the semester. When looking at the account balances, what constant would you multiply by to get the next week's balance? What constant would you multiply by to get the balance two weeks later?

c) Write a complete exponential model for the account balance with respect to the week.