

PSTAT 171. HW 1 (Winter 2021)

Instruction: Review textbook chapter 1 first. Multiple reading might help. Then try to solve the homework problems quickly.

1. Let $A_K(t) = 3t^2 + 2t + 800$,. Show that the sequence of interest rate i_n is decreasing for $n \geq 17$.
2. The monthly simple interest rate is .5 %. What is the yearly simple interest rate?
3. Elliott received an inheritance from his Aunt Ruth when she died on his fifth birthday. On his eighteenth birthday, the inheritance has grown to \$ 32168. If the money has been growing by compound interest at an annual effective interest rate of 6.2 %, find the amount of money Aunt Ruth left to Elliott.
4. A savings account earns compound interest at an annual effective interest rate i . Given that $i_{[2,4.5]} = 20\%$, find $d_{[1,3]}$.