

1. (a) How much is \$100 worth immediately after it is placed in an account earning a nominal interest rate of 12% APR compounded monthly?

(b) How much is it (the \$100) worth after 1 months in such an account?

(c) How much is it (the \$100) worth after 2 months in such an account?

(d) How much total would three \$100s be worth if one of the \$100s had been in the account for two months, another \$100 had been in the account for one month, and another had just been placed in the account?

(e) Suppose I told you eleven \$100s (one for ten months, one for nine, one for eight, ..., one for one month, and one just now) was worth \$1156.68. How much would twelve \$100s be worth? (one for eleven, one for ten, ..., one for one, and one just now)

(f) Describe three different ways to calculate the answer to (e). **All three will be on the exam.**

Basic annuity questions. Use the formula $A = R((1 + i)^n - 1)/(i)$

2. How much will a cash flow of \$100 deposited monthly into an account earning 12% APR be worth after 5 years?

3. How much must be deposited monthly into an account earning 12% APR in order to be worth \$10,000 after 3 years?

4. How long does it take for \$100 deposited monthly into an account earning a nominal interest rate of 12% APR to be worth \$50,000?