Exercise 1.

[1]

The effective annual rate (EAR) for a loan with a stated APR of 10% compounded quarterly is closest to:

A) 9.65%.

B) 10.00%.

C) 10.38%.

D) 12.50%.

Exercise 2.

[3]

Floyd Ferris invested $3000 into an account five years ago. Today his account has grown to have a balance of $3927.50. Given that his account offered monthly compounding of interest, the APR on this account is closest to:

A) 5.00%.

B) 5.25%.

C) 5.40%.

D) 5.54%.

Exercise 3.

[2]

You are considering purchasing a new truck that will cost you $34,000. The dealer offers you 1.9% APR financing for 48 months (with payments made at the end of the month). Assuming you finance the entire $34,000 and finance through the dealer, your monthly payments will be closest to:

A) $708.

B) $725.

C) $736.

D) $1086.

Exercise 4.

[1]

If an investment providing a nominal return of 12.25% only offers a real rate of return of 5.70%, then the inflation rate is closest to:

A) 5.70%.

B) 6.20%.

C) 6.55%.

D) 12.25%.

Exercise 5.

[3]

Suppose the term structure of interest rates is shown below:

Term	**1 year**	**2 years**	**3 years**	**5 years**	**10 years**	**20 years**
Rate (EAR%)	5.00%	4.80%	4.60%	4.50%	4.25%	4.15%

What is the NPV of an investment that costs $2500 and pays $1000 certain at the end of one, three, and five years?

Exercise 6.

You have found three investment choices for a one-year deposit: 10% APR compounded monthly, 10% APR compounded annually, and 9% APR compounded daily. Compute the EAR for each investment choice. (Assume that there are 365 days in the year.)

Exercise 7.

If the rate of inflation is 5%, what nominal interest rate is necessary for you to earn a 3% real interest rate on your investment?

Exercise 8.

Your uncle Fred just purchased a new boat. He brags to you about the low 7% interest rate (APR, monthly compounding) he obtained from the dealer. The rate is even lower than the rate he could have obtained on his home equity loan (8% APR, monthly compounding). If his tax rate is 25% and the interest on the home equity loan is tax deductible, but the interest on the boat is not tax deductible, which loan is truly cheaper?