Foundations 110 – Financial Math

N1: Analyze costs and benefits of renting, leasing and buying
N2: Analyze an investment portfolio in terms of: interest rate, rate of return, total return

Renting, Leasing and Buying

1. What is an asset?

2. What is depreciation?

3. What is appreciation?

4. What type of assets appreciate in value?

5. What type of assets depreciate in value?

6. What is the difference between renting, leasing and buying?

7. You need a new pencil. Would you rent or buy? Why?

8. You need a new computer. Would you rent or buy? Why?

9. You need a new car for a week. Would you rent or buy? Why

10. You need a car for daily use but you don't travel very far. Would you lease or buy? Why?

11. You need a car for daily use and you travel a lot. Would you lease or buy? Why?

12. You need a place to live. Would you rent or buy? Why

13. Is it cheaper to rent or lease? Explain

14. Is it cheaper to lease/rent or buy? Explain

15. What might be some reasons a person might need to rent/lease rather than buy? Ex: A car, a house, a boat…

16. What is meant by a "cost-and-benefit analysis"?

Read Summary on p 567
Complete p 567 #1, 2, 3, 4, 5, 6,10, 11, 13

Investment Portfolios

An **investment portfolio:** refers to all the different investments that an individual or organization holds. It includes stocks, bonds and mutual funds.

A **stock:** is ownership in a company as a way to raise money from the investing public. Investors who own stock have the right to a portion of the company's earnings and depending on how many shares an investor owns, he or she may have a substantial voice in the running of the company.

Bonds: Are also sold to the investing public, as well as to private investors, and are a way to lend a company money for a specific length of time at a set interest rate.

Mutual Funds: Are similar to stocks, but have managers who buy stocks or bonds for investors. So a mutual fund can be thought of as a basket of stocks.

A **Certificate of deposit:** is a savings vehicle that banks provide, that pays a higher rate of interest than a regular checking account.

The **Rule of 72**: is a simplified way to determine how long an investment will take to double, given a fixed annual rate of interest. By dividing 72 by the annual rate of return, investors can get a rough estimate of how many years it will take for the initial investment to duplicate itself.

By the end of this unit we will be able to:

- **Determine and compare the strengths and weaknesses of two or more portfolios**
- **Determine using technology, the total value of an investment when there are regular contributions to the principal**
- **Graph and compare the total value of an investment with and without regular contributions**
- **Apply the rule of 72 to solve investment problems, and explain the limitations of the rule**
- **Determine, using technology, possible investment strategies to achieve a financial goal**
- **Explain the advantages and disadvantages of long-term and short-term investment options**
- **Explain, using examples, why smaller investments over a longer term may be better than larger investments over a shorter term.**
- **Solve an investment problem**