Warm-up

- What is your monthly payment on a $213,000 loan if the interest rate is 4.7% and the term of the loan is 15 yrs? What is the total cost?

- If you can afford $193 a month for a car, how much can you afford to borrow? The loan is for 3yrs at 5% interest.

Chapter 5 Consumer Credit

5.1 MONTHLY PAYMENTS: HOW MUCH CAN YOU AFFORD TO BORROW?

Objectives:

- Major Functions of Credit
- Features of Installment Credit
- Monthly Payments
- Total Payments
- How much you can afford to borrow

Nature of Credit

- Credit:
  - Form of debt that occurs whenever cash, goods, or services are provided in exchange for a promise to pay at a future date.
  - “Buy Now, Pay Later”
  - Credit=Debt
- Examples
  - House
  - Car

Nature of Credit

- Deferred payment price:
  - Total amount paid to the bank
  - Considerable more then original loan amount

    - Example: $300,000 home loan at 5.75% ($1,751 per month) for 30 Years.
      - How much do you end up paying?

Nature of Credit

- Finance charge (interest) :
  - Difference between deferred payment price and original loan amount
    - Bank's profit
    - Price for using someone's money

Functions of Credit

- 1. Credit stabilizes the economy:
  - Enables individuals and business to purchase goods and services even when their incomes are limited.

Functions of Credit

- 2. Credit promises business growth:
  - Start a new business
  - Maintain business

Functions of Credit

- 3. Credit expands productivity and production
  - Initial costs of production must be financed by borrowed funds or existing funds

- Example:
  - College

Functions of Credit

- 4. Credit raises the standard of living.

- Example:
  - Not having to save and wait to buy:
    - House
    - Car
    - Furniture
    - Appliances

Using Installment Credit

- Making purchases and then making regular payments over a period of months or years.

Using Installment Credit

- Installment loan features:
  - 1. **Down payment**
    - Portion of purchase paid up front
  - 2. Finance charge added to the price.

Using Installment Credit

- Installment loan features:
  - 3. Payments of equal amounts spread over a specified period of time.
  - 4. To insure payments are made, protection may be provided to the lender
    - Security agreement

Monthly Payment Formula

$$M = \frac{\Pr(1+r)^n}{(1+r)^n - 1}$$

- Where M = monthly payment
  P = amount of loan
  r = monthly interest rate
  n = number of payment periods

- The monthly interest rate is the annual interest rate divided by 12.

Skill 1

- Taylor Swift has found a used car that she wants to buy. She is going to put a down payment on the car and needs to borrow $4500.

- Use the monthly payment formula to find her monthly payment if she borrows $4500 for a 5-year term at interest rate of 8%.
  - Her monthly payment is $91.24

Skill 1

- Taylor Swift has found a used car that she wants to buy. She is going to put a down payment on the car and needs to borrow $4500.

- How much will she pay for the car in the course of 5 years?
- Monthly payment * number of payment periods
  - 91.2437743*60 = 5474.63 Deferred payment price

- 91.2437743*60 = 5474.63 Deferred payment price

- Notice that 91.24 * 60 = 5474.40. In this case the bank would adjust your last payment so that the deferred payment price is $ 5474.63.