

Definitions:

Amortized Loan: pg. 163

Principal or Present Value:

Loan Formula: pg. 164

Loan balance: pg. 168

Examples:

Cost of Buying a Car: pg. 165 Suppose you want to purchase a Honda Accord and the added charges for taxes, title, license, and fees bring the total to \$16,032.31. You must make a 10% down payment and pay for the remainder through a car loan at an interest rate of 7.9% compounded monthly. You are to repay the loan with monthly payments for 4 years.

- What are the monthly payments?
- What is the total amount you make in payments over the life of the loan?
- How much interest will you pay over the life of the loan?

How Much Can You Borrow? # 13 pg. 174 Suppose you can obtain an 8-year bank loan at an interest rate of 9% compounded quarterly and you have determined that you can afford to make payments of \$350 each quarter. How much can you afford to borrow?

The Current Balance: # 17 pg. 175 Suppose a student takes out a 10-year \$9000 student loan at 7% interest compounded quarterly with quarterly payments. After 8 years of payments, the student decides to pay off the balance of the loan. How much will the student have to pay?

Paying Off the Loan Quickly: # 26 pg. 176 Suppose you have a student loan of \$5700 at 7% interest compounded quarterly with quarterly payments for 10 years. With this information we can find that the scheduled payments are $R = \$199.34$. If you pay an extra \$75 each quarter, how long will it take to pay off the loan?