

Personal Finance - Common Scenarios

Guided Notes

This resource is designed to help you actively engage with key mathematical concepts. By completing these notes, you'll establish connections between concepts, identify patterns, and develop a deeper understanding of the material.

Fill in the blanks, solve examples, and note questions as you go. Writing in your own words strengthens your memory and helps identify areas needing more attention. Bring your questions to class discussions where your instructor can address specific concerns. Don't focus on perfection—you'll learn math best through active engagement!

Getting and Using a Credit Card

Key Concept: Credit Card Basics

A credit card is _____

For college students, credit cards can be important because _____

Student Credit Card Features to Look For:

1. _____
2. _____
3. _____

How to Use a Credit Card Responsibly

Credit cards should be used as: _____

Each month, you should _____

If you don't pay your bill in full, you must _____

Credit Card Balance Types:

Statement balance: _____

Outstanding balance: _____

What to Look for in Your Initial Credit Card

1. Find a _____
2. Avoid _____
3. Keep the credit limit equal to _____
4. Avoid _____

Think About It

Why is it important to pay off your credit card in full each month rather than making minimum payments? What are the long-term financial consequences of only making minimum payments?

Risks and Rewards of Credit

Credit Pros:

1. _____
2. _____
3. _____

Credit Cons:

1. _____

2. _____
3. _____

The Danger of Debt

When you use a credit card, you take on an obligation to _____

Compounding Interest

Compounding interest works _____ when earning it on savings, but works _____ when paying it on loans.

Most credit cards use the **average daily balance method**, which means:

Average daily balance calculation:

$$\text{average daily balance} = \frac{\text{sum of the daily balances}}{\text{number of days in the billing cycle}}$$

Think About It

Consider how compounding interest affects the total amount paid on a credit card balance over time. If you charged \$1,000 on a credit card with 20% APR and only made minimum payments, how much extra would you end up paying and how long might it take to pay off?

Credit History and Credit Score

Key Concept: Credit Score

A credit score is _____

The range of credit scores is typically from _____ to _____.

A higher credit score indicates _____

Components of a Credit Score

Fill in the components and their weights in determining your credit score:

1. _____ (____ %)
2. _____ (____ %)
3. _____ (____ %)
4. _____ (____ %)
5. _____ (____ %)

Credit Score Ranges

Complete the table:

Credit Score Range	Rating	Description
< 580		
580-669		
670-739		
740-799		
800+		

How to Improve Your Credit Score

The main actions you can take to improve your credit score are:

1. _____
2. _____
3. _____

Resources for Credit Issues

1. **Loan consolidation:** _____
2. **Credit counselors:** _____
3. **Debt settlement plans:** _____
4. **Bankruptcy:** _____

Think About It

Why might employers and landlords be interested in your credit score, even though they aren't lending you money? What does your credit score potentially tell them about you as a person?

Credit Report

Key Concept: Credit Report

A credit report is _____

Credit reports are maintained by these three companies:

1. _____
2. _____
3. _____

What is included in a credit report?

1. _____

2. _____
3. _____
4. _____
5. _____
 - Soft inquiries: _____
 - Hard inquiries: _____
6. _____

What is NOT included in a credit report?

1. _____
2. _____
3. _____
4. _____

How to Get Your Credit Report

You are entitled to _____

The website to get your free annual credit report is _____

Think About It

Why is it important to regularly check your credit report even if you don't plan to take out any loans in the near future? What specific issues could arise if you never review your credit report?

The Basics of Car Purchasing

Key Concept: Car Purchase Considerations

When buying a car, the two basic questions to answer are:

1. What do you _____ and what do you _____?

2. How much can you _____ to spend on a car?

What you can afford must include:

- _____
- _____
- _____

Fees Beyond the Sticker Price

The MSRP (Manufacturer's Suggested Retail Price) is only part of the cost. Additional fees include:

1. Title and registration fee: _____
2. Destination fee: _____
3. Documentation fee: _____
4. Dealer preparation fee: _____
5. Extended warranties and maintenance plans: _____
6. _____ (if applicable in your state)

Think About It

When shopping for a car, why is it important to consider the total cost rather than just focusing on the monthly payment amount? What hidden costs might people overlook?

Car Loans

Key Concept: Installment Loans

An installment loan is _____

Each payment consists of:

- _____
- _____

The interest rate for your car loan depends on:

- _____

Key Concept: Loan Payment Formula

The payment, PMT , per period to pay off a loan with beginning principal (loan amount) P is:

$$PMT = \frac{P \left(\frac{r}{n} \right)}{1 - \left(1 + \frac{r}{n} \right)^{-nt}}$$

Where:

- $r =$ _____
- $t =$ _____
- $n =$ _____

Note: Payment to lenders is always rounded up to the next penny.

Practice with Car Loan Payments

Calculate the monthly payment for each scenario:

1. Total to be financed: \$24,500 Interest rate: 3.5% Term: 4 years
 - Step 1: _____
 - Step 2: _____
 - Step 3: _____
 - Monthly payment: _____
2. Total to be financed: \$18,750 Interest rate: 5.2% Term: 5 years
 - Monthly payment: _____

Key Concept: Down Payment

A down payment is _____

The purpose of a down payment is to:

- _____
- _____

Think About It

How does the length of a car loan affect the total amount paid for the car? Is it always better to choose the loan with the lowest monthly payment? Why or why not?

The Basics of Leasing a Car

Key Concept: Leasing a Car

Leasing a car is _____

At the end of the lease, you have these options:

- _____
- _____

Components of Lease Costs

1. Monthly payment for the lease
2. Fees for leasing:
 - _____ payment: _____
 - _____ fee: _____
 - _____ deposit: _____
 - _____ fees: _____
 - _____, _____, and _____ fees
 - _____ tax

Lessee Obligations:

When leasing a car, you must:

- _____

- _____
- _____

Key Concept: Monthly Depreciation

The monthly depreciation for a car, MD , is:

$$MD = \frac{P - R}{n}$$

Where:

- $P =$ _____
- $R =$ _____
- $n =$ _____

Key Concept: Money Factor

The annual percentage rate for a lease is $APR = 2400 \times MF$, where MF is the money factor of the lease.

The MF for a lease is $MF = \frac{APR}{2,400}$

Key Concept: Lease Payment Formula

The payment, PMT , for a lease is:

$$PMT = \frac{(P - R)}{n} + (P + R) \times MF$$

Where:

- $P =$ _____
- $R =$ _____
- $n =$ _____
- $MF =$ _____

Practice with Lease Calculations

1. Calculate the monthly depreciation for a car with:
 - Purchase price: \$32,000
 - Residual value: \$19,200
 - Lease term: 36 months
2. Monthly depreciation: _____
3. If a lease has an APR of 5.5%, what is the money factor? Money factor:

4. Calculate the lease payment for a car with:
 - Purchase price: \$26,000
 - Residual value: \$15,600
 - Lease term: 36 months
 - Money factor: 0.00021
5. Lease payment: _____

Think About It

Why might someone choose to lease a car instead of buying it, even though they will have no ownership at the end of the lease term? What financial and lifestyle factors might make leasing more appealing for some people?

Driving Choices: The Financial Implications

Leasing a Car

Pros:

1. _____
2. _____
3. _____
4. _____

Cons:

1. _____
2. _____
3. _____
4. _____

Buying a New Car

Pros:

1. _____
2. _____
3. _____
4. _____
5. _____

Cons:

1. _____
2. _____
3. _____

Buying a Used Car

Pros:

1. _____
2. _____
3. _____
4. _____
5. _____

Cons:

1. _____
2. _____
3. _____

Understanding the True Cost of Owning a Car

Car Insurance

Insurance is required in _____ states (all except _____).

Main components of auto insurance:

1. Liability insurance: _____
2. Collision insurance: _____
3. Comprehensive insurance: _____
4. Uninsured or underinsured motorist insurance: _____
5. Medical payments insurance: _____
6. Personal injury protection insurance: _____
7. Gap insurance: _____
8. Rental reimbursement insurance: _____

Maintaining a Car

Complete the maintenance cost table:

Maintenance	Frequency	Cost Range
New Tires		
Oil Change		
Wipers		
Inspection		

Brake pads		
Air Filter		

Key Concept: Fuel Costs

Fuel efficiency is measured in _____

Factors affecting fuel efficiency:

- _____
- _____
- _____

Key Concept: Annual Fuel Cost Formula

$$\text{annual fuel cost} = \frac{\text{miles driven annually}}{\text{miles per gallon}} \times \text{price per gallon of gas}$$

Practice with Fuel Costs

If you drive 12,000 miles per year and gas costs \$3.50 per gallon, calculate the annual fuel cost for:

1. A car with 22 MPG: _____
2. A car with 32 MPG: _____
3. Annual savings with the more efficient car: _____

Think About It

When calculating the total cost of car ownership, what factors matter most to you personally? Would you prioritize lower upfront costs, fuel efficiency, insurance costs, or maintenance expenses? How might your priorities change over time?

Advantages and Disadvantages of Renting

Key Concept: Renting Basics

A lease is _____

A landlord is _____

Advantages of Renting:

1. _____
2. _____
3. _____
4. _____

Disadvantages of Renting:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Renting Fees

When starting a lease, you typically pay:

- _____
- _____
- _____

Advantages and Disadvantages of Buying a Home

Advantages of Homeownership:

1. _____

2. _____
3. _____
4. _____
5. _____
6. _____

Disadvantages of Homeownership:

1. _____
2. _____
3. _____

Closing Costs

Closing costs include many fees paid at the time of purchase. These typically include:

1. Appraisal fee: _____
2. Home inspection fee: _____
3. Title search: _____
4. Prepaid taxes: _____
5. Credit report fee: _____
6. Origination fee: _____
7. Application fee: _____
8. Underwriting fee: _____
9. Agent/Attorney fees: _____
10. State or local fees: _____

Understanding and Calculating Mortgage Payments

Key Concept: Mortgage

A mortgage is _____

Mortgages are typically paid back over _____ or _____ years.

Components of a Mortgage Payment (PITI)

- P : _____
- I : _____
- T : _____
- I : _____

Private Mortgage Insurance (PMI)

PMI is required when: _____

It costs approximately: _____

It can be dropped when: _____

Key Concept: Mortgage Payment Formula

The payment, pmt , per month to pay down a mortgage with beginning principal P is:

$$pmt = \frac{P \times \frac{r}{12} \times \left(1 + \frac{r}{12}\right)^{12 \times t}}{\left(1 + \frac{r}{12}\right)^{12 \times t} - 1}$$

Where:

- P = _____
- r = _____
- t = _____

Note: Payment to lenders is always rounded up to the next penny.

Practice with Mortgage Calculations

Calculate the monthly payment for a mortgage with:

- Principal: \$185,000
- Interest rate: 4.25%
- Term: 30 years

Step 1: _____

Step 2: _____

Step 3: _____

Monthly payment: _____

Key Concept: Total Payment Formula

The total paid, T , on a t year mortgage with monthly payments pmt is:

$$T = pmt \times 12 \times t$$

Key Concept: Cost of Financing

The cost of financing a mortgage, CoF , is:

$$CoF = T - P$$

Where P is the mortgage's starting principal and T is the total paid over the life of the mortgage.

Practice with Total Cost and Financing Calculations

For the mortgage calculated in the previous example:

Total amount paid over 30 years: _____

Cost of financing: _____

Key Concept: Escrow Account

An escrow account is _____

Escrow accounts work by:

1. _____
2. _____
3. _____
4. _____

Practice with Escrow Payments

Calculate the total monthly payment for a house with:

- Mortgage payment (P & I): \$850 per month
- Annual property taxes: \$2,400
- Annual homeowner's insurance: \$960

Monthly escrow amount for taxes: _____

Monthly escrow amount for insurance: _____

Total monthly payment (PITI): _____

Think About It

How does the length of a mortgage (15 years vs. 30 years) affect both the monthly payment and the total cost of financing? What factors would you consider when deciding between different mortgage terms?

Reading and Interpreting Amortization Tables

Key Concept: Amortization Table

An amortization table is _____

Over time in a mortgage payment, the portion going to:

- Interest: _____
- Principal: _____

Understanding an Amortization Table

Using an amortization table, you can determine:

1. _____

2. _____
3. _____
4. _____
5. _____

Practice with Amortization Tables

Looking at a sample amortization table, identify:

1. How much of the first payment goes toward principal: _____
2. How much of the first payment goes toward interest: _____
3. How the principal/interest breakdown changes after 10 years: _____

4. Balance remaining after 15 years: _____

Think About It

Why does the amount that goes toward principal increase over time while the amount that goes toward interest decreases? How might understanding an amortization table help you make decisions about paying extra toward your mortgage?

Social Security Benefits: Understanding the Fundamentals

Key Concept: Eligibility Requirements

To qualify for Social Security benefits, one must earn _____, which are a measure of _____

The eligibility requirements for Social Security typically include:

- _____ credits needed (approximately _____ years of work)
- Credits are based on _____

- In 2023, one credit is earned for each \$_____ in earnings
- Maximum of _____ credits can be earned per year

Key Concept: Full Retirement Age (FRA)

Full retirement age is _____

Complete the table:

Year of Birth	Full Retirement Age
1942 or earlier	
1943-1954	
1955	
1956	
1957	
1958	
1959	
1960 and later	

If you claim benefits early: _____

If you delay retirement beyond FRA: _____

Key Concept: Benefit Amounts

Benefits are calculated based on:

Average Indexed Monthly Earnings (AIME): _____

AIME calculation includes:

- Up to _____ years of earnings
- Years with _____ are selected
- If you worked less than the required years, _____

Primary Insurance Amount (PIA): _____

The PIA formula uses "bend points" which:

- _____
- The 2023 bend points are \$_____ and \$_____

The PIA calculation is:

- **% of the first \$__** of AIME, plus
- **% of AIME over \$__** and through \$_____, plus
- **% of AIME over \$__**

Claiming Strategies

Earliest age to claim benefits: _____

Impact of claiming early: _____

Impact of delaying past FRA: _____

When to consider claiming early:

- _____
- _____

When to consider delaying:

- _____
- _____

Assessing Employer-Sponsored Retirement Benefits

Key Concept: 401(k) Plans

A 401(k) is _____

Types of 401(k) plans:

Traditional 401(k):

- Contributions are _____
- Tax implications: _____
- Withdrawals: _____

Roth 401(k):

- Contributions are _____
- Tax implications: _____
- Withdrawals: _____
- Employer match considerations: _____

Contribution limits (as of 2023):

- Under age 50: \$_____
- Additional "catch-up" contribution for over 50: \$_____

Employer matching:

- Typical matching rate: _____
- Vesting schedule: _____

Investment options typically include:

- _____
- _____
- _____

Early withdrawal considerations:

- _____
- _____

Key Concept: Pension Plans

A pension plan is _____

Key characteristics:

- _____
- _____
- _____
- _____

Key Concept: Employee Stock Ownership Plans (ESOPs) and Profit-Sharing Plans

Employee Stock Ownership Plans (ESOPs):

- _____
- _____

Profit-Sharing Plans:

- _____
- _____
- _____

Individual Retirement Accounts (IRAs)

Key Concept: Individual Retirement Account (IRA)

An IRA is _____

Two main types of IRAs:

Traditional IRA:

- Tax implications: _____
- Withdrawal rules: _____
- Early withdrawal penalty: _____

Roth IRA:

- Tax implications: _____
- Withdrawal rules: _____
- Qualified withdrawals: _____

Contribution limits (as of 2023):

- Under age 50: \$_____
- Age 50 or older: \$_____

Roth IRA income limitations:

- _____

Considerations for choosing between Traditional and Roth IRAs:

- _____
- _____

Investing

Key Concept: Bonds

Bonds are _____

Key terms:

- **Issue price:** _____
- **Coupon rate:** _____
- **Coupon yield:** _____
- **Maturity date:** _____

Types of bonds:

1. _____
2. _____
3. _____

How to determine coupon yield:

1. _____
2. _____
3. _____

Key Concept: Certificates of Deposit (CDs)

Certificates of Deposit (CDs) are _____

Key characteristics:

- _____
- _____
- _____
- _____

Advantages of CDs:

- _____
- _____

Disadvantages of CDs:

- _____
- _____

Key Concept: Stocks

Stocks are _____

Shares are _____

Stocks generate returns through:

1. _____
2. _____

Types of brokers:

- _____
- _____
- _____

Understanding Stock Tables

Stock table information includes:

Abbreviation	What It Stands For
Stock	
SYM	
52-Week High	

52-Week Low	
Annual DIV	
Yld %	
P/E	
Vol 100s	
High	
Low	
Close	
Net Chg	

Key formulas:

Percent Yield:

$$\text{Yld}\% = \frac{\text{annual dividend}}{\text{share price}} \times 100\%$$

Price to Earnings Ratio:

$$\text{P/E} = \frac{\text{Share Price}}{\text{EPS}}$$

Practice with Stock Calculations

Calculate the percent yield for a stock priced at \$45.75 with an annual dividend of \$1.25:

- Step 1: _____
- Step 2: _____
- Percent yield: _____

Key Concept: Mutual Funds

Mutual funds are _____

Key benefits:

- _____
- _____
- _____

Considerations when choosing mutual funds:

- _____
- _____

Key Concept: Exchange-Traded Funds (ETFs)

ETFs are _____

Differences from mutual funds:

- _____
- _____

Key Concept: Real Estate Investments

Real estate investment options:

1. _____
2. _____
3. _____

REITs are _____

Risks associated with real estate investments:

- _____
- _____

Key Concept: Cryptocurrency

Cryptocurrencies are _____

Risk factors:

- _____
- _____
- _____

Considerations before investing in cryptocurrency:

- _____
- _____

Key Takeaways

Summarize the most important concepts from each section:

Credit Cards:

- _____

- _____

- _____

Homeownership:

- _____

- _____

- _____

Cars:

- _____

- _____

- _____

Retirement Planning:

- _____

- _____

- _____

Questions to Ask in Class:

1. _____

2. _____

3. _____

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