



**Money
Smart**

for Grades 9-12



Educator Guide

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WELCOME TO MONEY SMART

Welcome to **Money Smart**, an exciting interactive exploration of the concepts of money. This standards-aligned, cross-curricular program is designed to promote personal financial education in grades 9 through 12 students and young adults aged 18 to 20. You can use **Money Smart** to add engaging and enriching activities to financial literacy and economics instruction. Extension activities support English Language Arts, Math, Social Studies and Economics, and Technology, while also helping your students build the foundation to become financially responsible adults.

In **Money Smart** you will find:

- **Twenty-Two Lessons** with hands-on, cross-curricular activities that engage ninth- through twelfth-grade students and young adults aged 18 to 20 in discussing and exploring key financial concepts
- **Teacher Presentation Slides**, which provide helpful visuals, as well as challenge exercises and reflective prompts to support the activities in each lesson
- **A Student Guide** with handouts, worksheets, and resources that let students explore the topics covered in each lesson and apply their new knowledge
- **A Parent/Caregiver Guide** with information about topics being covered in class, conversation starters, online and literary sources, along with conversation starters and family activities to try together

Developing positive financial habits equips students with 21st-century skills and tools that last a lifetime. We hope you and your students enjoy learning about money and its many uses.

We are eager to hear from you about how you use this curriculum. We would like to know what works well and what could be improved to make **Money Smart** even better. If you have any questions, we would like to help. Please contact us with your comments and questions via e-mail at communityaffairs@fdic.gov.

GETTING STARTED

Money Smart provides a comprehensive, developmentally appropriate program for teens and young adults to build an understanding of key financial concepts.

There are many features that help make the **Money Smart** curriculum engaging, motivating, and easy to use. Each lesson includes learning objectives, essential questions, supplies needed, and preparation required, as well as the following features and components to support easy integration of **Money Smart** activities into your instructional day.

STANDARDS

Each lesson promotes real-world connections through student-centered learning experiences and aligns to the following education standards, including Common Core State Standards in mathematics and English Language Arts. The **Education Standards Chart** identifies which standards are met in each lesson.

- Financial Literacy Jump\$tart Standards
- English Language Arts Common Core State Standards
- Mathematics Common Core State Standards
- National Standards in Economics by Council for Economic Education
- Partnership for 21st-Century Skills

GRADE-LEVEL MODIFICATIONS

Please note the modifications identified throughout the lessons to differentiate learning experiences for beginners and advanced learners. Modifications provide developmentally appropriate activity recommendations and extension opportunities for a wide range of learning levels.

PRESENTATION TIME

Each lesson plan includes an estimated time needed to teach the lesson. Actual time required will vary classroom to classroom. The estimation includes time spent on the **Warm Up, Guided Exploration, Independent Exploration, and Wrap Up**. Activities may also be taught as several short lessons over a period of days or weeks. **Extended Exploration** activities are included to extend financial literacy learning opportunities throughout the year and provide easy ways to integrate the topics into various content areas.

ASSESSMENTS

A variety of assessments will be integrated throughout each of the twenty-two lessons. Assessments are designed to build value, meaning, and context around a topic, while providing teachers with opportunities to evaluate prior student knowledge, and collect evidence of their new understandings of lesson concepts and skills. Pre- (formative) and post- (summative) assessments are noted on the first page of each lesson. Assessments include discussions, reflections, questions and answers, reading, writing, and problem-solving exercises. Student handouts are an especially useful form of written assessment.

LESSON STRUCTURE

Each lesson is designed to include the following:

- **Warm Up** introduces students to the topic and sparks inquiry.
- **Guided Exploration** integrates key financial literacy learning objectives with teacher support and guidance. Through whole-class discussions and activities, students discuss key topics and begin connecting the concepts to the context of their own lives.
- **Money Smart Tips** are provided throughout lessons to offer additional guidance, interesting and relevant financial facts, and additional ideas to help make *Money Smart* a success in your classroom.
- **Independent Exploration** activities are designed to engage students in the process of learning through individual discovery, research, and interpretation. These activities are more independent than the Guided Exploration activities and may also be used as homework assignments, for collaborative group work, or independent study.
- **Wrap Up** provides a reflection question or activity to review lesson concepts and allow students to demonstrate their understanding.
- **Extended Exploration** provides teachers with additional opportunities to extend financial literacy concepts throughout the school year within core content areas including English Language Arts and Math. Activities can be completed as a class, in small groups, or by students individually. Useful resources (such as books, web links, games, or videos) are also included to promote even more student engagement. The books and online resources suggested in this guide are just a few of the many available resources that explore these topics, and are not endorsed by the FDIC.
- **Student Handouts** (found in the **Student Guide**) and **Teacher Presentation Slides** provide dynamic instructional support. Student handouts create an opportunity for students to apply their knowledge and for teachers to assess their understanding. Teacher presentation slides offer visuals and interactive activities corresponding with lessons.
- The **Answer Key**, **Glossary**, and **Standards Chart** house all of the information needed to check for understanding, define key terms, and check which activities meet specific education standards. Vocabulary words are **bolded** in each lesson as they are introduced. It may be helpful to distribute copies of the entire glossary to students as a reference.

MONEY SMART AT HOME

The *Money Smart* curriculum includes a helpful **Parent/Caregiver Guide** that corresponds to the classroom materials. Families may also use it independently of the curriculum. It contains resources, activities, games, and conversation starters on financial literacy topics covered in each lesson. Use the following ideas to encourage parents to use the guide at home:

- Introduce parents to the *Money Smart* program and share the **Parent/Caregiver Guide** at the start of the school year.
- Discuss the *Money Smart* program during parent/teacher conferences, or in monthly parent newsletters home, and the importance of building healthy financial habits early on in life.

- Hold a **Money Smart** family night. Play games and have students share short skits about financial concepts they have learned.
- Send student handouts from each lesson home in homework folders for parents to review and sign.

MONEY SMART PORTFOLIO

To promote positive financial behaviors and demonstrate the compounding knowledge of financial literacy skills developed throughout the **Money Smart** curriculum program, introduce the **Money Smart Portfolio** into your classroom. The **Money Smart Portfolio** is a semester-long project that collects student handouts and activities from each lesson to be presented as a final portfolio.

The portfolio creation recognizes students' financial growth throughout each phase of the learning process. The portfolio also enables students to walk away with a comprehensive resource that may be referred back to anytime a financial question arises in their futures. Using the **Money Smart Portfolio** as a semester-long project also gives students a long-term goal to work toward, while enabling an excellent opportunity for final assessment.

Money Smart Portfolio is designed for the following purposes:

- Assess student understanding from each phase of the program
- Create opportunities for final student self-reflection and personal assessment
- Reaffirm for students the intrinsic nature of financial skills and how one skill and strategy leads to another
- Build long-term vision for students to invest in the program from beginning to end

FINANCIAL LITERACY ALL YEAR LONG

Highlight financial literacy at your school all year long, especially in April, during National Financial Literacy Month and School Library Month.

- Create bulletin boards or posters with students about financial literacy themes learned in **Money Smart**
- Create a class or school newsletter with students to distribute to the school community about money skills and financial concepts covered in class.
- Publish student handouts and activities from the **Money Smart** lessons by sharing them on a classroom blog, website, or through social media.
- Display student work in the classroom, library, and hallways to spread financial literacy throughout the school community.
- Connect with other teachers to integrate real-world applications of financial literacy across all disciplines and classrooms, from Math to English Language Arts and Technology courses.

The more that students are exposed to financial literacy, and the more opportunity they have to practice applying their new knowledge and understanding of concepts, at school and at home, the more prepared they will be to live **Money Smart** lives.



LESSON 9: AS EASY AS PI

GRADES
9 - 12
AND AGES
18 - 20

LESSON OVERVIEW

For many teens and young adults, the thought of **financial ratios** may seem complex and overwhelming. This lesson uses humor and the concept of **pi** to shatter such misconceptions by engaging content directly related to students' lives. Teens will see how financial ratios apply to everyday situations and discover that understanding **debt-to-income**, **debt-to-asset**, and **debt-to-limit** will strengthen their abilities to make wise financial decisions.

TOPIC: Financial Ratios

SUBJECT CONNECTIONS: Math, Social Studies, English Language Arts

TIME REQUIRED: 50 minutes (*excluding Extended Exploration activities*)

LEARNING OBJECTIVES:

Students will be able to...

- Identify common financial ratios
- Demonstrate and explain how to calculate financial ratios
- Discuss how financial ratios impact financial decision making and creditworthiness

SUPPLIES:

- Projector (for teacher presentation slides)
- Access to the Internet (**optional**)

PREPARATION:

- Make copies of student handouts
- Set up projector with presentation slides

STUDENT HANDOUTS:

(*found in Student Guide*)

- **Financial Ratios**
- **Ratios Race**

TEACHER PRESENTATION SLIDES:

- **Easy as Pi**
- **Financial Ratios (3)**

ESSENTIAL QUESTIONS:

- *What are financial ratios?*
- *How do financial ratios affect my money?*

ASSESSMENT ACTIVITIES:

PRE-ASSESSMENT:

- **Easy as Pi** slide

POST-ASSESSMENT:

- **Financial Ratios** handout
- **Ratios Race** handout

MONEY SMART PORTFOLIO:

- **Ratios Race** handout

Answer Key.....	13
Glossary with key vocabulary	15



INSTRUCTION STEPS

WARM UP

EASY AS PI [5 MINUTES]

Open the lesson by displaying the *Easy as Pi* slide, which contains the digits of pi, or display one million digits of pi from <http://www.piday.org/million/>. Using humor, tell students that today they will memorize the exact ratio of a circle's circumference to its diameter, or pi. When students realize that this task seems arduous and impossible, make the connection that, even if a math challenge seems overwhelming at first, if we break the challenge into manageable pieces it becomes more workable. Tell students that they will now explore and practice financial ratios, and that, if at first the ratios seem complex, learning a few basic computing strategies can be much easier than memorizing "pi"!

GUIDED EXPLORATION

FINANCIAL RATIOS [20 MINUTES]

Explain that lenders take a risk in lending money because there is always the chance that a borrower will be unable to repay the loan. To minimize risk and ensure a borrower is equipped to repay debt, lenders analyze and consider many different components before deciding to lend money to a borrower, including financial ratios.

MONEY SMART TIP!

Connect back to Lesson 7, *Capacity, Character, Collateral, Capital, and Lesson 8, The Almighty Dollar?*, for more information on credit risks and lenders.

Display the *Financial Ratios* slides and explain how each of the ratios work, using examples of your own or those provided below.

- **Debt-to-Income** measures your monthly debt payments against your monthly gross income. To calculate, you divide your monthly debt by your monthly gross income. For example: if you pay \$200 each month for a car loan and \$1,000 each month for a home loan, your total debt payment each month is \$1,200 ($\$200 + \$1,000$). If your monthly gross income is \$4,000, then your debt-to-income ratio is 30 percent ($\$1,200 \div \$4,000$). A high debt-to-income ratio signals to lenders that a borrower may struggle to meet monthly repayments.

MONEY SMART TIP!

Connect back to Lesson 6, *Bread-and-Butter*, and remind students that gross income is your total income before deductions and that net is your total income after deductions.



- **Debt-to-Assets** measures the amount of money owed (**liabilities** like a car loan or student loan) to items that are of value (**assets** like property owned, savings accounts, retirement savings). To calculate, you divide your total liabilities by your total assets. For example: if you own a home that is worth \$200,000 (asset), but you have a mortgage of \$50,000 left on the home (liability), your debt-to-asset ratio is 25 percent ($\$50,000 \div \$200,000 = 0.25$ or 25%). The higher the percentage, the greater the level of risk.
- **Debt-to-Limit** measures the amount of credit debt to your credit limit. To calculate, divide your total credit card balance by the credit limit available to you. For example: if you currently have a balance of \$500 on a credit card with a credit limit of \$3,000, your debt-to-limit ratio is 16 percent ($\$500 \div \$3,000 = 0.16$ or 16%). Your debt-to-limit ratio, also called **credit utilization**, is used to calculate your credit score. The debt-to-limit should be at least 30 percent of the credit card limit, and not exceed 50 percent of the limit.

MONEY SMART TIP!

Connect back to Lesson 7, *Capacity, Character, Collateral, Capital*, and Lesson 8, *The Almighty Dollar?*, for more information on credit reports and credit scores.

Grade-Level Modifications:

Beginner: Have students first focus only on debt-to-income ratios. When students have mastered calculating that, then introduce debt-to-assets and debt-to-limit.

Advanced: Scale student learning by introducing additional financial ratios and expanding the discussion to include ratios applicable to businesses, such as return-on-assets, debt-to-equity, and inventory turnover ratios.

Next, distribute the **Financial Ratios** handout and work through the sample problems together as a class. Ask students to share their ideas on why financial ratios are important to understand. Help students understand that financial ratios are a representation of financial behavior and can determine items like credit score and the ability to borrow money.

INDEPENDENT EXPLORATION

Note: These activities are more independent than the Guided Exploration activities and may be used as homework assignments, collaborative group work, or independent study.

RATIOS IN ACTION [20 MINUTES]

Distribute the **Ratios Race** handout and divide the class into small groups. Explain that the activity is a race to see which group can come up with the correct financial ratios first to solve each of the problems. Give students time to get settled into their groups and then signal the start of the competition.

When the first group to answer all of the financial ratios is done, have that group explain to the class its answers, and discuss each of the scenarios. If there are dissenters, encourage groups to debate the scenarios and share with the class the correct answers from the answer key.



WRAP UP

WHY RATIOS? [5 MINUTES]

Close the lesson by having students reflect on how financial ratios are connected to our financial behaviors. Ask students: *Why are financial ratios important for us to understand? How do they influence your ability to borrow?*

EXTENDED EXPLORATION

Note: Use the following ideas to extend financial literacy concepts throughout the school year within core content areas through English Language Arts, Math, Social Studies and Economics, and Technology activities, projects, and discussions. Duration of activities will vary.

ENGLISH LANGUAGE ARTS

- **Writing Prompts:**
 - What is an ideal balance of debt to income? Explain your position and disprove opposing viewpoints.
 - How does one use credit wisely? Describe three ways to responsibly manage credit, such as not using all available credit, not carrying a balance on a credit card, and paying all bills in full and on time.
- **Suggested Readings:**
 - *What Is Debt-to-Income Ratio?* by the Consumer Financial Protection Bureau: Explore reasons why understanding your debt-to-income ratio is important to overall financial health. <http://www.consumerfinance.gov/askcfpb/1791/what-debt-income-ratio-why-43-debt-income-ratio-important.html>
 - *Analyze Your Debt-to-Limit Ratio:* Read about how to analyze your debt-to-limit ratio and why it is important to understand. <http://finance.yahoo.com/news/analyze-debt-credit-limit-ratio-171100241.html>

MATHEMATICS

- **Activity/Project Ideas:**
 - Have students practice applying financial ratios based on both consumer and business examples. For instance, have students calculate several businesses' debt-to-assets ratios and compare and contrast results. For example: if a company has \$10 million in assets and \$2 million in debt, what is the debt-to-asset ratio? What if the reverse were true, and a company had \$2 million in assets and \$10 million in debt?



SOCIAL STUDIES AND ECONOMICS

- **Discussion Topics:**
 - Ask students to reflect and discuss how financial ratios apply to businesses, large and small. Have students compare the value of financial ratios from consumer use to business applications. For example: ratios provide a snapshot of financial behaviors for both consumers and businesses and this snapshot can be vital in showing investors how a business manages finances, credit, and potential growth.
 - Discuss the role government plays in regulating credit cards and how this affects consumers' debt-to-limit ratios.
- **Activity/Project Ideas:**
 - Have students research several different public companies and assess their financials such as debt and equity. Challenge students to apply the financial ratios and discuss how businesses use financial ratios to determine borrowing and spending capabilities.

TECHNOLOGY

- **Online Resources:**
 - Debt-to-Assets Ratio Calculator: An online calculator that calculates debt-to-assets ratios.
<http://www.calculatorpro.com/calculator/debt-to-assets-ratio-calculator/>
 - Debt-to-Income Calculator: An online calculator that calculates debt-to-income ratio.
<http://www.zillow.com/mortgage-calculator/debt-to-income-calculator/>

ANSWER KEY

for Student Handouts

LESSON 9: AS EASY AS PI

Student Handout: *Financial Ratios*

1. Debt-to-Income: monthly debt divided by monthly gross

income What is Ishaan's total debt? \$1,330

What is his gross income? \$2,500

What is his debt-to-income ratio?

53%

2. Debt-to-Assets: liabilities divided by assets

Stephanie recently took out a loan for \$5,500 to help pay for a new-used car. The car is worth \$9,500. How much are Stephanie's total liabilities? \$5,500

How much are her assets? \$9,500

What is her debt-to-assets ratio?

57%

3. Debt-to-Limits: credit debt divided by credit limit

Avni has a credit card with a \$5,000 credit limit. She currently has a balance of \$2,000 on the card.

What is Avni's credit limit? \$5,000

What is her debt? \$2,000

What is her debt-to-limits ratio? 40%

Student Handout: Ratios Race

<p>James, 18 years old</p> <p>“I bought my first car last year and it’s great. It’s so much easier to get to school and work now. I did have to borrow money, though, because I only had \$3,000 saved up and the car cost \$5,000. I just checked online to see how much my car is worth today and it’s dropped a little in value. If I sold it right now, it’s worth \$4,500. I still have \$1,500 left on my car loan, though. I’m wondering how I can measure my loan to the value of my car. What do you think...which ratio should I use?”</p> <p>What ratio should James use? Debt-to-assets ratio</p> <p>What is James’s ratio percentage: 33%</p>	<p>Elizabeth, 28 years old</p> <p>“I haven’t been very good about managing my debt, and I’m trying to figure out how my debt relates to my income. I have four different credit cards right now but I really want to pay them all off soon. For now, though, I’m making monthly payments of \$50 on one, \$200 on another, \$25 on a third, and \$175 on the fourth. I also own a home, and my mortgage is another\$900 a month. I earn \$3,200 each month before taxes. Can you help me figure out what financial ratio to use?”</p> <p>What ratio should Elizabeth use? Debt-to-income ratio</p> <p>What is Elizabeth’s ratio percentage: 42%</p>	<p>Michael, 23 years old</p> <p>“I want to purchase a home someday, so I’m making sure my credit score is in good shape. I have a credit card that I can spend up to \$1,000 on but I only have a balance of \$100. What financial ratio would help me? Do the math...what’s my percentage?”</p> <p>What ratio should Michael use? Debt-to-limits ratio</p> <p>What is Michael’s ratio percentage: 10%</p>
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GLOSSARY

401k: A plan offered through an employer that gives employees a choice of investment options, typically mutual funds, to save a portion of their salary for retirement.

403b: A plan offered by to employees of public schools, certain non-profits, and some members of the clergy to set aside money for retirement.

Annual Percentage Rate (APR): The cost of borrowing money on a yearly basis, expressed as a percentage rate. For example: a \$100 loan repaid in its entirety after one year with a \$10 finance charge has an APR of 10%.

Annual Percentage Yield (APY): A percentage rate reflecting the total amount of interest paid on a deposit account based on the interest rate and the frequency of compounding for a year. For example: a \$1,000 investment that earns 6% per year pays \$60 at year-end and has an APY of 6%.

Asset: An item with economic value, such as stock or real estate.

Auto Insurance: A contract between you and an insurance company in which you agree to pay a fee (premium) and in return, the insurance company agrees to pay for certain expenses associated with an accident or other covered losses on your vehicle. (See also **Insurance**.)

Automated Teller Machine (ATM): A machine, activated by a magnetically encoded card or other medium that can process a variety of banking transactions. These include accepting deposits and loan payments, providing withdrawals, and transferring funds between accounts.

Balance Sheet: A summary of a company's assets, liabilities, and shareholders' equity.

Bank: A financial institution and business that accepts deposits, makes loans, and handles other financial transactions.

Bank Teller: A bank employee who handles routine transactions, such as deposits or withdraws into a bank account.

Beneficiary: Someone who is designated to receive certain benefits after the death of another individual.

Bonds: A debt security, similar to an "IOU". When you buy a bond, you are lending money to the issuer in exchange for the issuer's promise to pay you a specified rate of interest and to repay the principal when it "matures," or comes due.

Branch Manager: A bank employee that supervises bank operations at a branch location.

Budget: A plan that outlines what money you expect to earn or receive (your income) and how you will save it or spend it (your expenses) for a given period of time; also called a spending plan.

Capacity: Refers to your ability to repay a loan and other debts.

Capital: Refers to the value of your assets and your net worth.

Career: The type of work a person pursues for the majority of their life that may involve formal education, special training, or be within a specific industry.

GLOSSARY (continued)

Cash Flow: The amount of money flowing in (income) and flowing out (expenses) of a personal budget.

Cash Flow Statement: A summary of the money that comes in (income) and out (expenses) of a household or business over a period of time.

Certificate of Deposit (CD): A special type of savings account offered by banks or credit unions that typically offers a higher rate of interest than a regular savings account. You generally must keep your funds in the CD for a specified period of time to avoid penalties. The end of that time period is called the “maturity date.”

Certified Public Accountant (CPA): An accountant who has passed an examination and met other requirements and has been granted a certificate by a state agency.

Character: In finance, this refers to how you have paid your bills or debts in the past.

Charitable Giving: Money that you give to a nonprofit organization, charity, or private foundation.

Checking Account: A deposit account at a financial institution that allows consumers to make deposits, pay bills, and make withdrawals. Money that is in a checking account is very liquid, meaning it can be easily accessed.

Claim: Request to an insurance company for payment for a covered loss under an insurance policy.

Closing Costs: The expenses incurred by sellers and buyers in transferring ownership in real property. These costs may include the origination fee, attorneys' fees, loan fees, title search and insurance, and recordation fees.

Collateral: An asset that secures a loan or other debt that a lender can take if you default (don't repay) the money you borrow. For example: if you get a real estate mortgage, the bank's collateral is typically your house.

College Work-Study Program (Federal Work-Study): A program that enables qualifying students to work part time to receive money that helps finance the costs of post-secondary education.

Commercial Property Insurance: Coverage that a business or other entity purchases from an insurer to help cover losses to buildings and contents due to a covered cause of loss, such as a fire. (See also **Insurance**.)

Compound Interest: The interest paid on principal and previously earned interest.

Consumer Installment Loan: Money that a person borrows and agrees to pay back by making a set number of payments over a period of time.

Co-Pay: Also known as a copayment, a fixed amount (for example: \$15) you pay for a covered health care service, usually when you get the service.

Corporation: A legal entity that is distinct from the individual(s) who compose the business yet has rights and abilities similar to those of a natural person.

Credit: The ability to borrow money and pay it back later.

Credit Card: A plastic card that can be used to obtain credit (such as to purchase goods and services).

Credit Card Accountability Responsibility and Disclosure Act: A law that prohibits certain practices that are unfair or abusive. The law also makes the rates and fees on credit cards more transparent so consumers can understand how much they are paying for their credit card and can compare different cards.

GLOSSARY (continued)

Credit Report: A record of your credit - and some bill repayment history - and the status of your credit accounts. This information includes how often you make your payments on time, how much credit you have, how much credit you have available, how much credit you are using, and whether a debt or bill collector is collecting money you owe.

Credit Score: A number, roughly between 300 and 800, that measures an individual's credit worthiness. The most well-known type of credit score is the FICO[®] score. This score represents the answer from a mathematical formula that assigns numerical values to various pieces of information in your credit report.

Credit Union: A not-for-profit financial institution owned by its members and represented by a volunteer board of directors who are elected by the membership. To become a member, you must meet the credit union's field of membership requirements and open a share account.

Creditworthiness: A creditor's measure of a consumer's past and future ability and willingness to repay debts. (See also **Credit Report** and **Credit Score**.)

Crowdfunding: A process of raising money for a cause or purpose, often online, from multiple people.

Customer Service Representative: A person who provides general information, handles complaints or inquiries, and may help consumers open accounts.

Debit Card: A plastic card that can be used to deposit or withdraw cash from a checking or other bank deposit account, such as at automated teller machines or at retail locations that accept cards.

Debt-to-Assets: Measures the ratio of your monies owed (liabilities such as a car loan) to items that are of value (assets such as property). To calculate, you divide your total liabilities by your total assets. For example: if you own a home that is worth \$200,000 (asset), but you have a mortgage of \$50,000 left on the home (liability), your debt-to-asset ratio is 25% ($\$50,000 \div \$200,000 = 0.25$ or 25%).

Debt-to-Equity: A measure of solvency (the ability of a business to pay off its debt if the business were immediately sold) that is calculated by dividing total liabilities by stockholders' equity.

Debt-to-Income: A measure calculated by dividing your monthly debt payments by your gross monthly income. For example: if you pay \$200 each month for a car loan and \$1,000 each month for a home loan, your total debt payment each month is \$1,200 ($\$200 + \$1,000$). If your monthly gross income is \$4,000, then your debt-to-income ratio is 30% ($\$1,200 \div \$4,000$).

Deductible: The dollar amount or percentage of a loss that you have to pay before the insurance policy begins to pay.

Deduction: An amount that reduces the amount of income on which a person pays tax.

Direct Loan: A low-interest loan for students and parents to help pay for the cost of a student's education after high school.

Disability Insurance: Protects a person from loss of income due to a covered illness or injury. (See also **Insurance**.)

Diversification: The approach of spreading your money among various investments with the hope that if one investment loses money, the others will make up for those losses; also referred to by the phrase "don't put all your eggs in one basket."

GLOSSARY (continued)

Entrepreneur: An individual who establishes and operates his or her own business.

Equal Credit Opportunity Act: A federal law that prohibits credit-related discrimination on the basis of gender, race, marital status, religion, national origin, age, or receipt of public assistance.

Equity: The difference between the value of a piece of property (such as a house) and any debts for it (such as the amount of a mortgage).

Estate: The property of a person who has died.

Estate Planning: Planning for what will happen with assets or property after death.

Estate Tax: A tax on your right to transfer property at your death.

Executor: Someone who is selected to administer an estate (for example, make sure that the instructions in the will are properly followed).

Expense: The cost of goods and services.

Federal Deposit Insurance Corporation (FDIC): Preserves and promotes public confidence in the U.S. financial system by insuring deposits in banks and thrift institutions for at least \$250,000. An independent agency of the federal government, the FDIC was created in 1933 in response to the thousands of bank failures that occurred in the 1920s and early 1930s. Since the start of FDIC insurance on January 1, 1934, no depositor has lost a single cent of insured funds as a result of a failure.

Finance Charge: The total dollar amount paid for credit. For example: a \$100 loan repaid with \$9 interest plus a \$1 service fee has a finance charge of \$10.

Financial Advisor: A person who provides financial information and advice.

Financial Aid: Award(s) to individuals to help pay for education expenses.

Financial Planning: Identifying a person's financial goals, needs, and expected earning, saving, investing, insurance, and debt management activities.

Financial Ratios: Useful indicators of financial performance.

Financial Recordkeeping: The documentation of a person's financial affairs, including income earned, taxes paid, and expenses.

Fiscal Policy: A broad term used to refer to the tax and spending policies of the federal government. Fiscal policy decisions are determined by Congress and the governing Administration.

Fixed Expense: An expense that does not change from month to month.

Fixed-Rate Loan: A loan that has an interest rate that does not change.

Free Application for Federal Student Aid (FAFSA): The free application used to apply for federal student aid, such as federal grants, loans, and work-study.

Goal: Something you wish to achieve or accomplish in a specific amount of time.

GLOSSARY (continued)

Grant: A form of financial aid, often based on financial need that does not need to be repaid (unless, for example, you withdraw from school and owe a refund).

Gross Income (Gross Pay): Earnings before deductions (as for taxes or expenses) are subtracted.

Health Insurance: A contract that requires your health insurer to pay some or all of your health care costs in exchange for a premium (money paid).

Home-Based Business Insurance: Protection against certain losses and other risks for those who engage in business activity at their home. (See also **Insurance**.)

Homeowner's Insurance: An insurance policy that covers a homeowner's house, other structures on their property, and personal contents against losses caused by such things as windstorms, fire, and theft. It generally also provides liability coverage (for example: this coverage would be applicable if you are found responsible for the injury of a friend who injures themselves while visiting you). (See also **Insurance**.)

Identity Theft: When someone steals another person's identity to commit fraud, such as by using his or her name or Social Security number to get something. Identity theft is a crime.

Income: Money that you receive from jobs, allowances, gifts, interest, dividends, and other sources.

Income Tax: Taxes on income, both earned (salaries, wages, tips, commissions) and unearned (interest, dividends). Income taxes can be levied on both individuals (personal income taxes) and businesses (business and corporate income taxes).

Individual Retirement Account (IRA): A deposit or investment account that an individual opens and uses to save money for retirement and that has certain tax advantages

Inflation: A rise in the general level of prices of goods and services in an economy over a period of time; the opposite is deflation.

Insurance: A contractual relationship that exists when one party (the Insurer), for a fee (the premium) agrees to reimburse another party (the Insured or third party on behalf of the Insured) for a specific loss.

Insurance Agent: A person who sells insurance policies.

Interest: Money that a bank or other financial institution pays you for keeping money on deposit with them, or the amount of money you pay a bank as a fee when you borrow money. You can earn interest from a bank (such as when you keep money in a saving account) or pay interest (such as when you borrow money).

Inventory Turnover Ratio: A ratio showing how often a company's inventory is sold and replaced during a year or other period of time.

Invest: To put money at risk with the goal of making a profit (return) in the future.

Investment: Using money or time in a way that you expect will bring you a return or increase in value.

Investment Vehicle: The type or methods that a person (or business) can use to invest money.

Investors: People who expect a future financial return from using their money to finance investments.

Job: A specific duty, task, or activity someone completes using his or her time, skills, and energy to earn money.

GLOSSARY (continued)

Joint Tenancy: Equal ownership of property by two or more parties, each of whom has the right of survivorship (for example: when a person dies, their interest in the property is transferred to the other owners).

Lawyer: A person who practices law; also known as an attorney.

Lease: A contract transferring the use of property or occupancy of land, space, structures, or equipment in exchange for rent (generally money).

Lender: An organization or person that lends money with the expectation that it is repaid.

Liability: An amount owed to a person or organization for borrowed funds; responsibility to another for negligence that results in injury or damage.

Liability Insurance: Covers losses that an insured is legally liable, such as for another's personal injury or for property damage. (See also **Insurance**.)

Life Insurance: A form of insurance that will pay money to a beneficiary if the policyholder dies. (See also **Insurance**.)

Limited Liability Company (LLC): An entity formed under state law by filing articles of organization as an LLC. Unlike a partnership, none of the members of an LLC are personally liable for its debts.

Loan: Money borrowed that has to be repaid, generally with interest.

Loan Officer: A bank employee that (depending on the bank) evaluates, authorizes, or recommends approval of loan applications for people and businesses.

Long-Term Care: Services that include medical and non-medical care provided to people who are unable to perform basic activities of daily living, like dressing or bathing. Medicare and most health insurance plans don't pay for long-term care.

Medicare: A health insurance program for people who are 65 or older, certain younger people with disabilities, and people with permanent kidney failure requiring dialysis or a transplant. This program is financed by deductions from wages and managed by the federal Social Security Administration.

Monetary Policy: What the Federal Reserve, the nation's central bank, does to influence the amount of money and credit in the U.S. economy. What happens to money and credit affects interest rates (the cost of credit) and the performance of the U.S. economy.

Money Market Deposit Account: A savings account that offers a higher rate of interest in exchange for larger than normal deposits.

Mortgage (Home Loan): A contract, signed by a borrower when a home loan is made, that gives the lender the right to take possession of the property if the borrower fails to pay off, or defaults on, the loan.

Mutual Funds: An investment tool that pools the money of many investors and invests it in stocks, bonds, and money market assets, or other securities.

Need: Something you must have to survive, such as clothes, shelter, or food.

Net Income (Take-Home Pay): The gross pay minus deductions (such as for taxes, health care premiums, and retirement savings).

GLOSSARY (continued)

Net Worth: The difference between what you own (assets) and what you owe (debts).

Online Banking: A service that enables an accountholder to obtain account information and manage certain banking transactions through the financial institution's web site on the Internet.

Partnership: Two or more persons who join to carry on a trade or business. Each person contributes money, property, labor or skill, and expects to share in the profits and losses of the business. Partners are liable for the partnership's financial responsibilities.

Paycheck: A check that is used to pay an employee for his or her work.

Pell Grant: Awarded to undergraduate students who have demonstrated financial need.

Perkins Loan: Low-interest federal student loans for undergraduate and graduate students with exceptional financial need.

Personal Exemptions: Reduces the income subject to taxation by the exemption amount.

Pharming: Redirecting Internet requests to false Web sites to collect personal information, which is generally then used to commit fraud and identity theft.

Philanthropy: Giving money or time for the purpose of trying to make life better for others.

Phishing: When fraudsters impersonate a business or government agency to try to get you to give them personal information, such as through an email or text message. Can also be thought of as "fishing for confidential information".

Pi: A Greek letter that reflects the ratio of the circumference of a circle to its diameter.

Predatory Lending: Certain practices that result in a borrower obtaining a loan that is harmful. These include, among other things, charging excessive fees and interest rates, lending without regard to borrowers' ability to repay, refinancing borrowers' loans repeatedly over a short period of time without any economic gain for the borrower, and committing outright fraud or deception (such as falsifying documents).

Premium: The amount of money that has to be paid for an insurance policy.

Profit: The money gained or left over after money spent (expense) is subtracted from money earned (income).

Profit-and-Loss Statement: A financial statement that summarizes the financial performance of a business during a specific period of time, including by outlining the firm's income, expenses, and the resulting profit or loss.

Policy: Contract between the insured and the insurer.

Power of Attorney: A legal instrument authorizing someone to handle the financial or other business affairs of another person.

Principal: The amount of money originally invested or the money that is borrowed.

Property Insurance: Insurance to protect you against damage that may occur to your property. (See also **Insurance**.)

"Rainy Day" Fund (Emergency Fund): Money set aside to pay for unexpected expenses.

GLOSSARY (continued)

Rate of Return: Profit or loss over a one year period, expressed as a percentage.

Recession: A period of reduced economic activity.

Rent: The amount of money needed to live in or use someone else's property, such as a home, condo, or apartment.

Rent-to-Own: A lease contract that includes an option to buy the product.

Return on Assets: An amount calculated by dividing annual earnings by its total assets.

Return on Investment (ROI): The annual return on an investment, expressed as a percentage of the total amount invested.

Revenue: The total income produced by a given source.

Right of Survivorship: A successor's ability to acquire the property of a deceased individual upon his or her death.

Risk: The possibility that something unplanned or unintended may happen (such as losing money). Uncertainty about outcomes that are not equally desirable. In finance, it refers to the degree of uncertainty about the rate of return and the potential harm that could arise when financial returns are not what the investor expected.

Risk Management: The process of calculating risk and choosing approaches to minimize or manage loss.

Roth IRA: An Individual Retirement Account that you deposit after tax dollars into for accumulation of retirement savings.

Rule of 72: A rough calculation of the time or interest rate needed to double the value of an investment determined by taking the number 72 and dividing it by the interest rate. For example: To figure how many years it will take to double a lump sum invested at an annual rate of 8%, divide 72 by 8, for a result of 9 years.

Salary: Compensation for work paid on a regular basis (bi-weekly/monthly) typically expressed as an annual amount.

Save: To set something, like money, aside to use in the future.

Savings Account: A bank account that you can use to set aside money, and that pays you interest.

Scholarship: Money awarded to students based on academic or other achievements to help pay for education expenses. Scholarships generally do not have to be repaid.

Secured Installment Loan: A loan for which you provide collateral to secure your promise to repay the money you borrow.

Self-Employment Tax: Money that someone who is considered self-employed must pay to the federal government to fund Medicare and Social Security.

Social Security: A federal government program that provides retirement, survivors, and disability benefits, funded by a tax on income.

Sole Proprietorship: A simple structure where there is only one person owning and operating the business.

GLOSSARY (continued)

Spending Plan: Another name for a budget.

Start-Up Capital: Money that is invested to help start a new business.

Stock: An investment that represents a share of ownership in a company.

Student Loans: A sum of money borrowed by an individual to help pay for college with the intent that it will be repaid at a future date, along with any agreed-upon interest.

Tax: Money that has to be paid to a government to provide public goods and services.

Tenancy in Common: Shared ownership of a property in which more than two people hold the title.

Tenancy in Entirety: Shared ownership of a property between a husband and wife, when one dies, the other still owns the property.

Text Message Spam: Similar to e-mail spam, but on your cell phone. Criminals often text offers of free gifts or low-cost credit offers to try to get you to click on a link so they can install malware on your phone or get you to give them information they can use to commit fraud.

Time Value of Money: The concept that a dollar today is not worth the same as a dollar in the future.

Traditional IRA: A retirement savings program to which yearly tax-deductible contributions up to a specified limit can be made. The amount contributed is not taxed until withdrawn. Withdrawal is not permitted without penalty until the individual reaches age 59 and a half.

Trust: A legal arrangement in which one person holds or manages assets or other property for the benefit of another.

Unsecured Installment Loan: A loan that is not secured by an asset (collateral) that a lender could take if you do not repay the loan.

Variable Annuities: A contract between you and an insurance company, under which you make a lump-sum payment or series of payments. In return, the insurer agrees to make periodic payments to you beginning immediately or at some future date.

Variable Expense: Money that a person spends or gives away that varies from month to month.

Variable-Rate Loan: A loan where the interest rate might change.

Want: Something that you would like to have but that you could live without, such as a TV or tickets to a baseball game.

Will: A legal document in which a person conveys information such as how they want their money and assets to be distributed after their death and who should be the guardian of their children.



Money
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FINANCIAL RATIOS

Name: _____

Read each scenario and apply the appropriate financial ratio.

1) Debt-to-Income: *monthly debt divided by monthly gross income*

Ishaan has a monthly mortgage payment of \$800, one credit card at \$200 a month, a second credit card at \$80 a month, and a car loan for \$250 a month. His income is \$2,500 each month before taxes.

What is Ishaan's total debt? _____

What is his income? _____

What is his Debt-to-Income ratio? _____

2) Debt-to-Assets: *liabilities divided by assets*

Stephanie recently took out a loan for \$5,500 to help pay for a new-used car. The car is worth \$9,500.

How much are Stephanie's total liabilities? _____

How much are her assets? _____

What is her Debt-to-Assets ratio? _____

3) Debt-to-Limits: *credit debt divided by credit limit*

Avni has a credit card with a \$5,000 credit limit. She currently has a balance of \$2,000 on the card.

What is Avni's credit limit? _____

What is her debt? _____

What is her Debt-to-Limits ratio? _____



RATIOS RACE

Name: _____

Working with your small group, be the first team to correctly solve the financial ratio problems below. Remember — the financial ratios to choose from are debt-to-income, debt-to-assets, and debt-to-limits. Ready, set, race!

James, 18 years old

“I bought my first car last year and it’s great. It’s so much easier to get to school and work now. I did have to borrow money, though, because I only had \$3,000 saved up and the car cost \$5,000. I just checked online to see how much my car is worth today, and it’s dropped a little in value. If I sold it right now, it’s worth \$4,500. I still have \$1,500 left on my car loan, though. I’m wondering how I can measure my loan to the value of my car. What do you think...which ratio should I calculate?”

What ratio should James use? _____

What is James’s ratio percentage? _____

Elizabeth, 28 years old

“I haven’t been very good about managing my debt, and I’m trying to figure out how my debt relates to my income. I have four different credit cards right now but I really want to pay them all off soon. For now, though, I’m making monthly payments of \$50 on one, \$200 on another, \$25 on a third, and \$175 on the fourth. I also own a home, and my mortgage is another \$900 a month. I earn \$3,200 each month before taxes. Can you help me figure out what financial ratio to use?”

What ratio should Elizabeth use? _____

What is Elizabeth’s ratio percentage? _____

Michael, 23 years old

“I want to purchase a home someday, so I’m making sure my credit score is in good shape. I have a credit card that I can spend up to \$1,000 on but I only have a balance of \$100. What financial ratio would help me? Do the math...what’s my percentage?”

What ratio should Michael use? _____

What is Michael’s ratio percentage? _____