## Синвмс



STUDENT BOOK


## Consumer Math | Unit 2

## SAVING AND INVESTING PLAN AND INSURANCE PLAN

Let's look at the last two pieces of a good financial plan.
Saving and Investing Plan. Savings and investing plans help you reach your financial goals. They're simply plans that give details about how you will save and invest. These details include the amount of money, types of savings accounts, financial institutions, types of investments, names of stock, etc. Many people meet with a financial advisor to create a plan. Saving and investing will be addressed more in detail in Unit 4.
Insurance Plan. Throughout your life, you'll face risks as an individual. For example, when you drive, you risk getting in a car accident. Because there are risks like this, there are different types of insurance policies. They include health insurance, car insurance, life insurance, disability insurance, and others.
When you are insured, should something happen that adversely affects your life in some way, the insurance company will compensate you appropriately according to your policy agreement. The compensation is called insurance benefits. An insurance plan simply lists the types of insurance that you need to meet your needs.

We will go over individual types of insurance coverage in greater detail in Unit 8, but here we'll look at different types of life insurance.
Life insurance. Life insurance is intended to protect your dependents in case of death. Life insurance may be purchased in different forms and at different rates called premiums. In essence, you are paying the insurance company to protect you against certain chance events. The insurance company then pays you if the events you are insured against do indeed happen. Premiums depend on the various factors including age at the time the policy is purchased. Probabilities are calculated based on these factors. Companies use these probabilities to calculate premiums. Premiums are frequently broken up into quarterly, semiannual or annual payments per unit.

Term life insurance. The least expensive kind of life insurance is term insurance. Term insurance covers the insured for the stated term of the policy. The term can be for one year, five years, ten years, or any other stated period of time. Premiums are paid throughout the term. If the insured dies during the term, the beneficiary receives the face value of the policy. At the end of the term, insurance ceases; and the policy is of no value.

Term insurance has no value as an investment, but it provides inexpensive insurance coverage and is especially useful to the young family with a limited income, as it provides some security in the event of the death of the major wage earner.

Whole-life insurance. The next kind of insurance in terms of expense is whole-life insurance. The insured pays premiums on this type of insurance until his death. At that time, the face value of the policy is paid to the beneficiary. In addition, this type of insurance has a cash value for the insured if he decides to stop paying premiums and cash the policy in. Thus, ordinary whole life insurance has some value as an investment, although it is very low.
Limited-payment life insurance. The next most expensive type of insurance is limited-payment life insurance. This type of insurance covers the insured for life, but the insured only has to pay on it for a certain number of years. The most usual limited time is twenty or thirty years. For example, a limited-payment life insurance policy for thirty years
 is called "thirty-payment" or simply "thirty-pay."

In summary, the five parts that make up a good financial plan include:

| a net worth statement | financial goals |
| :---: | :---: |
| budget | savings and investing plans | insurance plan

## Complete the activity.

1.3 The least expensive type of life insurance is:
a. limited-payment life insurance
b. term life insurance
c. whole-life insurance

## Write $T$ for True or $F$ for false.

Term insurance covers the insured for the stated term of the policy.
For term life insurance, at the end of the term, insurance ceases and the policy is
worth its face value.

## Write $T$ for True or $F$ for false.

1.11 A saving and investing plan is part of a good financial plan.
1.12
1.13
$\qquad$ A savings account is part of a financial plan.
$\qquad$ A savings and investing plan is part of a financial plan.
1.14 A budget is part of a financial plan.
1.15 $\qquad$ A variable expense is a cost that stays the same from month to month.
1.16 A variable expense is a cost that changes.

## ORGANIZING PERSONAL FINANCES

To plan for your financial future, you'll need all your personal information regarding income, expenses, assets, and liabilities. Items that would be helpful include bank statements, statements from investment accounts, paycheck records, checking account withdrawal receipts, recent bills, and car loan statements. The key to creating a solid financial plan is having an accurate snapshot of your finances. The more information you can find, the better.
It's very helpful to organize this information. Find a system that is right for you. Some people like physical copies of bills and statements that can be filed in a filing cabinet. If you prefer a physical filing system, one way to organize a system like this is to obtain four file folders. Label one folder "Statements." This folder would be where you put statements from
 banks, loans, credit cards, and investments. Also include documents that contain phone numbers of who to call if you lose your debit or credit card.
Label the next folder "Taxes." This is where you keep any tax documents, such as W-2 forms, tax forms from a bank, and tax return forms. It's recommended that you keep tax forms for seven years. Also, keep any receipts for donations in this folder because donations may be deducted from your taxes.

Label your third folder "Temporary." In this folder, keep anything you need for this month, such as bills, ATM receipts, paycheck stub, receipts, etc. You will use this information to complete your monthly budget. This folder may be cleaned out after you complete your budget. Recycle, shred, or refile the remaining paperwork.
Label your fourth folder "Financial Plan." Place your financial goals, net worth statement, and budget in this folder. This folder may be an electronic folder stored on your computer.

You can also use this same system digitally. Simply create digital folders with the same labels and save digital copies of this information in the folders.

## Complete these activities.

1.17 To plan for your financial future, you need an accurate snapshot of your $\qquad$ .
a. income
b. expenses
c. education
d. finances
1.18 The more $\qquad$ you include in your financial records system, the better.
a. paperwork
b. information
c. phone numbers
d. effort
1.19 In two to three sentences, describe the organization system for your financial information you think would work best for you.
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Now that you know a good way to organize your finances, try this activity on your own. Grab four file folders and start organizing! Even if you have no tax documents or bank statements right now, go ahead and create the folders so they're ready when you need them.
1.20 List the four steps of making a budget.
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## CHECK

Date


## LET'S REVIEW!

There are five parts to a good financial plan. They are net worth statement, financial goals, budget, saving and investing plan, and insurance plan. To complete this financial plan, it is important to organize your financial information, such as bills, receipts, and account statements. In this section, you focused on why it is important to have a budget and how to create a budget. A budget is important because it helps you avoid financial problems, and it keeps you in control of your money. The steps to creating a budget are listing your sources of income, listing your expenses, monitoring your progress, and making adjustments.

3Review the material in this section in preparation for the Self Test. The Self Test will check your mastery of this particular section. The items missed on this Self Test will indicate specific areas where restudy is needed for mastery.

## SELF TEST 1

Write the letter of the vocabulary word that matches the correct definition (each answer, 3 points).

| 1.01 | costs that change in amount each month | a. fixed expenses |
| :---: | :---: | :---: |
| 1.02 | once a year | b. face value |
| 1.03 | twice a year; every six months | c. biannually <br> d. annually |
| 1.04 | a plan for how you will spend and save money | e. variable expenses |
| 1.05 | costs that remain the same amount each month | f. insured <br> g. budget |
| 1.06 | amount of money paid for insurance | h. beneficiary |
| 1.07 | survivor who receives benefits paid upon death of insured person | i. premium <br> j. quarterly |
| 1.08 | four times a year; every three months |  |
| 1.09 | among of a policy stated on the insurance policy |  |
| 1.010 | person covered by insurance |  |

Write $\boldsymbol{T}$ for True or $\boldsymbol{F}$ for False (each answer, 2 points).

| 1.011 | Net worth is the amount you have plus the amount you owe. |
| :---: | :---: |
| 1.012 | A budget is a plan for saving and spending your money. |
| 1.013 | Term insurance covers the insured for the stated term of the policy. |
| 1.014 | For term life insurance, at the end of the term, insurance ceases and the policy is worth its face value. |
| 1.015 | Premiums on ordinary whole-life insurance policies are paid until death of the insured. |
| 1.016 | Ordinary whole life insurance has some value as an investment. |
| 1.017 | Limited payment life insurance covers the insured for life, but they only have to pay on it for a certain number of years. |
| 1.018 | The most usual time period for limited payment life insurance is fifteen or twenty years. |
| 1.019 | The most usual time period for limited payment life insurance is five or ten years. |
| 1.020 | Face value is the amount of a life insurance policy stated on the policy. |

Circle the correct answer (this answer, 6 points).
1.021 The least expensive type of life insurance is:
a. limited-payment life insurance
b. term life insurance
c. whole-life insurance
1.022 To plan for your financial future, you need an accurate snapshot of your $\qquad$ .
a. expenses
b. education
c. finances
1.023 The more $\qquad$ you include in your financial records system, the better.
a. information
b. phone numbers
c. effort

Write the five parts of a good financial plan (each answer, 3 points).
1.024 $\qquad$
1.025 $\qquad$
1.026 $\qquad$
1.027 $\qquad$
1.028 $\qquad$
List the four steps of a good budget system for a young, single person (each step, 3 points).
1.029 Step 1: $\qquad$
1.030 Step 2: $\qquad$
1.031 Step 3: $\qquad$
1.032 Step 4: $\qquad$
Complete the activity (this response, 5 points).
1.033 In one to two sentences, explain the difference between variable expenses and fixed expenses.
$\qquad$
$\qquad$
$\qquad$
$\qquad$

68 $\qquad$
$\qquad$

## 2. SPENDING

Spending money well is a skill. We have discussed credit buying responsibly, and we have discussed budgeting. With practice, we can learn to spend money carefully, get good value for our money, and save money as we spend. In this section, you will learn about the dangers of impulse purchases, how to shop for bargains and calculate your savings, the importance of high-quality products, the differences between needs and wants, and how to track your spending.

## Section Objectives

Review these objectives. When you have completed this section, you should be able to:
5. Describe the benefits of planning all purchases and not buying items that are not part of the plan.
6. Describe how overspending can deter an individual from reaching financial goals.
7. Identify examples of spending wisely.

## Vocabulary

Study these words to enhance your learning success in this section.
algebraic expression
impulse purchases
overhead
rule
asking price
markdown
profit
variable

## discount markup rebate

Note: All vocabulary words in this unit appear in boldface print the first time they are used. If you are unsure of the meaning when you are reading, study the definitions given.

Think Before You Spend. The job of spending money well is worth working at because the savings add up. If you can save 10 percent on a major purchase, the saving is equivalent to investing an equal amount of money for a year at 10 percent, which is a good investment.
First, saving money is not easy. It requires effort to research products, wait for sales, compare selling prices, discounts, and markdowns. Just as financing charges are part of the cost of a loan, they are also part of the cost of the merchandise purchased with that loan. Thus, the math associated with these terms can be very helpful to your decision making. Since an automobile and a home are among the two largest purchases that most individuals make, several lessons will be built around buying a home or buying a car.
"Buy low and sell high" is a formula that expresses the goals of any commercial transaction. The buyer wants a low price; the seller wants a high price. Wise buyers understand how a sales price is computed and that different merchants have different costs in their selling or asking price. Obviously, to make a profit, merchants must sell items for more than they buy them for. That is, they must add a markup to the cost of an item to get its selling price. Thus, cost and markup are variables.

If $C$ stands for cost, $M$ stands for markup, and $S$ stands for selling price, then an algebraic expression in which letters represent any possible range of numerals is a concise way to see the relationship between these elements. The relationship between cost and asking price is called markup. The fundamental algebraic expression is:

$$
C+M=S
$$

## EXAMPLE

A bicycle with a wholesale cost of $\$ 63.00$ is marked up $\$ 30.98$.
What is the selling price?
Using the algebraic expression $C+M=S$, we can determine the selling price will be
$\$ 63.00+\$ 30.98=\$ 93.98$.

Once you have an algebraic expression, you can use this rule to solve any part of the expression you do not know. In the model above a selling price was found using the fundamental algebraic expression. But suppose you know the cost and the selling price, and you want to find the markup. Simple! Subtract the cost from both sides of the equation and get an algebraic expression for markup (see the table below). Likewise, if you know the markup and the selling price, you can get an algebraic expression for cost by subtracting the markup from both sides of the equation.

## TO SUMMARIZE

$$
\begin{array}{ll}
\text { To solve for selling price, use the equation: } & \mathbf{C}+\mathbf{M}=\mathbf{S} \\
\text { To solve for markup, use the equation: } & \mathbf{M}=\mathbf{S}-\mathbf{C} \\
\text { To solve for cost, use the equation: } & \mathbf{C = S}=\mathbf{M}
\end{array}
$$

A bicycle with a wholesale cost of $\$ 63.00$ is marked up $\$ 30.98$.
What is the selling price?
Using the algebraic expression $\mathrm{C}+\mathrm{M}=\mathrm{S}$, we can determine the selling price will be
$\$ 63.00$ + \$30.98 = \$93.98.

Beware of the Sudden Impulse to Buy. We've all been there. You see something in a store—clothing, a new game, jewelry, a cute kitten-and we REALLY want to take it home. But impulse buys, even small ones, add up. Danny created a budget for the first time. A few weeks ago, he entered the amounts he expected to pay for each of his expenses. Now, as he enters the amounts he actually spent during the month, he notices he spent much more than he expected. For instance, he expected to spend $\$ 60$ per month for food and drink at school. He actually spent $\$ 85$. And he expected to pay $\$ 50$ for gas. He actually paid $\$ 82$. He also had quite a few miscellaneous expenses for candy bars, sodas, and video games that he had not accounted for in his original budget. Danny thinks about how he can reduce his spending so that he can meet his goals. In this section, you will take a closer look at spending.

## Complete these activities.

2.1 Jimmy did not plan to buy gum and a magazine at the checkout counter. These are impulse purchases.
a. false
b. true
2.2 Find the selling price of a stereo costing $\$ 125.39$ that is marked up $\$ 76.00$.
2.3 Which algebraic expression did you use to solve the equation of the selling price?
a. $C+M=S$
b. $M=S-C$
c. $C=S-M$
2.4 Find the selling price of a dress costing $\$ 10.50$ and marked up $\$ 9.00$.
2.5 Find the selling price of a box of paper clips costing $\$ 0.10$ and marked up \$0.29.
2.6 Find the markup on a candle costing $\$ 0.67$ and selling for $\$ 0.98$.
2.7 Which algebraic expression did you use to solve the equation of the selling price?
a. $C+M=S$
b. $M=S-C$
c. $\mathrm{C}=\mathrm{S}-\mathrm{M}$
2.8 Find the original cost of a football marked up $\$ 8.00$, now selling for $\$ 15.76$.
2.9 Which algebraic expression did you use to solve the equation of the selling price?
a. $C+M=S$
b. $M=S-C$
c. $\mathrm{C}=\mathrm{S}-\mathrm{M}$
2.10 Find the original cost of a chair marked up $\$ 35.00$, now selling for $\$ 89.95$.
$\qquad$

## SPENDING WISELY

It's very normal to want to purchase more than you can afford. There are many tempting products available to spend money on. These products are advertised on television and in magazines, and strategically placed in stores. However, if you spend more than you have, you are not spending wisely.
Spending less than you make is the most important habit for reaching financial independence. Spending wisely helps you reach your financial goals. It helps you establish control over your finances. And spending wisely keeps you from owing banks and credit cards large amounts of money. How do you spend money wisely?
Here are some great tips:
» Avoid impulse purchases.
» Look for bargains.
» Buy high quality.
» Use credits cards infrequently.
» Think about what is most important.
» Track your spending.

## AVOIDING IMPULSE PURCHASES

When you visit the mall, do you find yourself buying things that seem appealing at first, but in the end, you don't need them? These are impulse purchases. To avoid impulse purchases, plan purchases ahead of time and don't buy anything that is not part of the plan. In other words, never buy anything unless you set out to buy it. Create a list before you shop and stick to it. This doesn't mean that you can't buy something you want. It does mean that you only buy things you plan to buy and can afford. Let's look at a few examples. Think about which character you identify with and who has better spending habits.

## EXAMPLE

Sara needs a new pair of shoes. Last time she went to the mall, she made an impulse purchase on an expensive dress. She does not have money now to buy shoes.

Maria makes a list before she goes shopping. It includes shoes and gloves. She looks at how much money she has in her checking account, and she looks at her budget. She decides that she can spend no more than $\$ 80$. While she is at the mall, she sees a scarf that she likes. She knows that it is not on her list, so she continues on to look for shoes and gloves. She may put "scarf" on her list the next time she goes shopping.

Would you say it's pretty obvious that Maria has better spending habits? She planned her purchases and did not buy items that were not part of the plan. You also can avoid impulse purchases in places like the gas station and grocery store. Have you ever been tempted by the magazines and candy bars placed near the check out? Those are usually impulse purchases.
Look for Bargains. After you have created a shopping list, look for the lowest price. Let's say you need a new alarm clock. The only features you need on the clock are a radio and battery backup. To find the lowest price for this item, you may conduct a search on the internet, visit store websites, or compare prices by visiting several stores.

Buy High-Quality Products. Let's say you found a small TV stand for your bedroom for $\$ 19.99$. You put it together, but the shelf keeps falling down. When you buy. products of high quality, they last longer. This keeps you from spending more money replacing broken items in the long run. However, it is not always easy to judge if a product is of good quality. Sometimes it is helpful to look at the brand name, buy items that come with a warranty, or read product reviews.


Use Credit Cards Infrequently. Overuse of credit
cards is a big problem when it comes to spending. Only use a credit card if you can pay off the entire purchase when the bill comes. Otherwise, you will pay interest in addition to the purchase price. Let's look at an example.
Think About What Is Most Important. Before you spend, think about your goals and what is most important to you. Is it more important to save up so you can buy a car next summer, or is it more important to go to a dinner and a movie with your friends this week? Is it more important to buy jeans and a new shirt, or is it more important to buy gas for your car? Giving some thought to your purchases and weighing the options can make a big difference in whether you reach your financial goals.

## TRACKING YOUR SPENDING

A spending diary or budget can be used to track your spending. Whether you use a digital tracker such as notes in your phone or a spreadsheet on your laptop or keep a simple notebook where you write down each purchase, tracking your spending with give you a better picture of where and how you are spending your money, as well as where and how you can save. If you spend too much on things you don't really need, tracking can help you change your habits. Let's look at an example.

EXAMPLE
Rachel is a mom who works outside of the home. Often, she works late and decides to order food instead of cooking dinner. She spends $\$ 40$ to $\$ 70$ each time she orders food from a restaurant. Rachel sets up a budget to track spending. She realizes that she spent $\$ 760$ last month for dinners she ordered. This is much more than she thought she spent. Rachel works hard for her money and decides that she needs to change this spending habit.

## Write $T$ for True or $F$ for False.

$\qquad$ Avoiding impulse spending is a good tip for spending wisely.
2.12 $\qquad$ Avoiding buying gifts is a good tip for spending wisely.
2.13 $\qquad$ Borrowing money from your friends is a good tip for spending wisely.
2.14 $\qquad$ Looking for bargains is a good tip for spending wisely.
2.15 $\qquad$ Tracking your spending is a good tip for spending wisely.
2.16 $\qquad$ Using credit cards infrequently is a good tip for spending wisely.

## Complete these activities.

2.17 Spending wisely $\qquad$ .
a. requires use of credit cards
b. increases stress
c. takes a lot of time
d. helps you control your finances
2.18 In one to two sentences, describe how you can spend wisely or improve your spending habits.
$\qquad$
$\qquad$
$\qquad$

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