

Summary

When you open a checking account, you put money in the bank and then write checks. The bank gives the money to whomever you wrote checks.

Many banks have a minimum deposit for checking and savings accounts.

Banks charge fees for checking and some savings accounts. These could include check fees, service charges, and ATM charges.

When you put money in your account, you need to fill out a deposit slip.

Always fill out checks carefully and clearly using a pen. Also sign and date the check. Never sign a blank check.

Put money you wish to save in a savings account. Banks pay interest on your savings accounts.

A bank statement is a report of how much money is in your account. Use the information to make sure your balance is correct.

Vocabulary Review

Complete each sentence with a term from the box.
Use a separate sheet of paper.

signature card

receipt

deposit slip

balance

savings account

withdrawal slip

ATM

1. A card you sign when you open a bank account is a _____.

2. The amount of money in a bank account is the _____.

3. A form used to take money out of the bank is a _____.

4. Money kept in a bank gains interest in a _____.

5. A _____ shows how much money you put in or took out of your account.

6. The abbreviation for "automatic teller machine" is _____.

7. A _____ shows how much money you are putting in the bank.

Chapter Quiz

Write your answers in complete sentences.

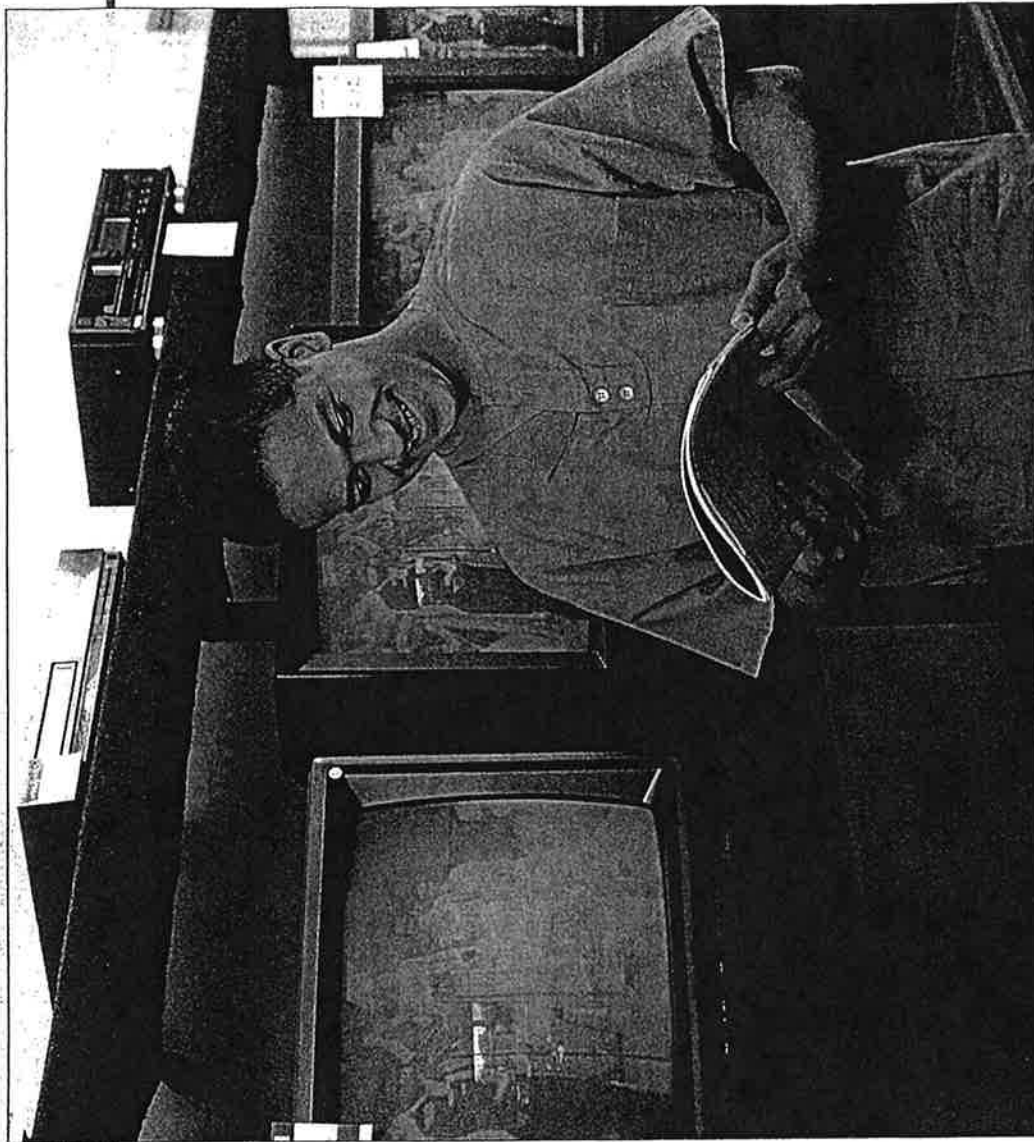
1. Tammy wrote a check to a shoe store for \$46.78. However, she only has \$17.18 in her checking account. What will happen?
2. What is the difference between the interest banks pay and a fee for an account?
3. When you open a checking account, what information do you need to have with you?
4. What are three tips for writing checks?
5. What could happen if you do not keep track of the checks you write?
6. Will your money earn more interest in a checking account or in a savings account? Why?
7. **CRITICAL THINKING** What things should you consider when you choose a bank?

Writing Activity

Most stores charge customers \$15 or more if banks return their checks. However, most people are honest. They just do not know how much money is in their checking accounts. Should honest people be charged for writing bad checks? Why or why not? Write your point of view in a paragraph on a separate sheet of paper.

Group Activity

Work with a partner to learn about checking accounts. Each partner will talk with someone who has a checking account. Find out why this person chose that bank. Does the bank pay interest on checking accounts? What fees does it charge for checking accounts? Compare and contrast the information you learn. Make a chart.



Managing your money carefully allows you to buy the things you really want. What are some ways you can manage your money?

Learning Objectives

- Explain the information shown on a paycheck.
- Explain the information on a paycheck stub.
- Describe how to cash a paycheck.
- Describe how to set up a budget.
- Explain why it is important to stay on a budget.
- Identify reasons why people save money.
- Explain how to manage your money.

Chapter 15

Managing Your Money

Words to Know

paycheck	a check from your employer for the money earned from a job
paycheck stub	a form attached to a paycheck that lists important information
gross pay	the total amount of money an employee earns
deduction	money taken out of a paycheck
net pay	the amount of money an employee receives after deductions are taken out of the gross pay
cash a check	to give a check to a bank and receive the amount of money written on it
teller	a bank employee who works behind the counter
endorse	to sign your name on the back of a check
expenses	payments
budget	a plan for spending money
retirement	the years after a person stops working and earning income
Social Security	a government-run retirement savings program

Read the situation below about Keith. He lives at home, earns money, yet does not manage it well.

When Keith received his first paycheck, he felt rich. He bought a shirt he had wanted for a long time. He went to a couple of movies with friends. He also had pizza after work a few times. After only four days, Keith was broke. "I must have lost some of my money," he said. "I couldn't have spent it all!"

Keith needs to learn how to handle his money so it does not seem to disappear. This chapter will help you learn how to manage your money. Then you will have some when you need it!


15-1 Understanding Your Paycheck

When you have a job and start earning money, you receive a **paycheck**. A paycheck is a check from your employer. It has your name on it. Your paycheck also shows the amount of money that your employer is paying you for your work.

Some employers pay their employees every week. Other employers pay them every two weeks. Still others pay employees only once a month.

The amount of money in your paycheck depends on several things. It may be based on how much money you earn per hour and the number of hours you worked. Other types of paychecks are based on a set amount for a certain job.

Keith's paycheck is for \$85.30. That is how much he earned for the hours he worked last week. Keith works at Grant's Grocery Store. This store keeps its money at

 Grant's Grocery Store 14 Pine Street Albany, New Hampshire 12345		Core States New Hampshire First Bank		PAYROLL CHECK 55-12345
PAY		DATE 01/21/01		CHECK NO. 082349
TO THE ORDER OF Keith Parsons 212 Main Road Albany, New Hampshire 54321		EIGHTY-FIVE AND 30/100 DOLLARS		AMOUNT \$85.30
SOUND SURE BANK 678 Oak Street Albany, New Hampshire 12345		AUTHORIZED SIGNATURE <i>Marisa Alonso</i> ACCOUNTANT		
⑆081788000⑆ 082349⑈ 082349				

This is a paycheck. You may receive a paycheck once a week or once a month.

Sound Sure Bank. That is why Sound Sure Bank is the name printed on the bottom of Keith's paycheck.

The check also shows the date it was written. It was signed by Marisa Alonso. Ms. Alonso works at the store and writes its checks.

Practice

Suppose you worked for Grant's Grocery Store and wrote its checks. On a separate sheet of paper, draw a paycheck. Use a partner's name in place of Keith's. Show \$63.25 as the amount your partner is being paid. Write the amount in numbers and in words, as on Keith's paycheck. Sign the paycheck with your name in place of Ms. Alonso's. Show this paycheck to your partner. Discuss whether you put the information in the right places.

15-2

Understanding a Paycheck Stub

A filled-in form is attached to Keith's paycheck. This is the **paycheck stub**. It lists a great deal of information. When Keith gets his paycheck, he looks at the stub to be sure that it is correct. First, he checks

Grant's Grocery Store

EMPLOYEE NUMBER 12345		CURRENT HOURS REGULAR 20 00 OVERTIME 00		Y.T.D. NET 170 60	F.I.T. 18 00	CURRENT F.I.C.A. 9 00 STATE TAX 6 00 LOCAL TAX 1 70	
CURRENT EARNINGS REGULAR 120 00 OVERTIME 00 SPECIAL 00		Y.T.D. GROSS 240 00	F.I.T. 36 00	YEAR TO DATE F.I.C.A. 18 00 STATE TAX 12 00 LOCAL TAX 3 40		TOTAL DEDUCTIONS 34 70 NET PAY 85 30	
CHECK NO. 082349	ENDING DATE 01 14 01	CHECK DATE 01 21 01	AUTHORIZED DEDUCTIONS AND SPECIAL PAY ELEMENTS				

STATEMENT OF EARNINGS AND DEDUCTIONS • DETACH AND RETAIN FOR YOUR RECORDS

This is a paycheck stub.

the "Current Hours" box. He wants to see whether it shows all the hours he worked last week. The "Current Hours" box on this paycheck is correct. It shows that Keith worked 20 hours last week, with no overtime.

Then Keith multiplies the number of hours he worked by his pay for each hour. Keith makes \$6 an hour: 20 hours times \$6 per hour is \$120.00. Keith checks the "Current Earnings" box on his paycheck stub. The amount is correct: \$120.00.

The total amount of money an employee earns is called **gross pay**. Look for the "Current Earnings" section on Keith's paycheck stub. It shows \$120.00, which is the total amount he earned. That is his gross pay.

But Keith received a check for only \$85.30. This is because some money was taken out of his paycheck. Money taken out of a paycheck is called a **deduction**.

Below are the main kinds of deductions. They are listed on Keith's paycheck stub. These deductions are all taxes. Most employees have these deductions taken out of their paychecks. Other paychecks may have other kinds of deductions.

Deductions	
F.I.T.	Federal income tax
F.I.C.A.	Social security tax
State tax	State tax
Local tax	City tax

Each tax is shown twice on Keith's paycheck stub. The "Current" numbers are the total taxes only for this paycheck. The year-to-date (Y.T.D.) numbers are the total taxes he has paid so far this year. The "Total Deductions" box shows all the deductions for this paycheck: \$34.70.

The amount of money an employee receives after deductions are taken out of the gross pay is called **net pay**. Find the "Net Pay" box on the paycheck stub. It shows

\$85.30. This is the amount of money Keith actually gets to keep. To figure net pay, subtract all deductions from the gross pay: $\$120.00 - \$34.70 = \$85.30$.

Practice

Answer these questions on a separate sheet of paper.

1. How much money was taken from Keith's paycheck for local taxes? How much has been taken out for local taxes so far this year?
2. What does Y.T.D. Gross mean?

15-3

Cashing a Paycheck

When you cash a check, you give it to a person at a bank or a business that cashes checks. That person gives you the amount of money written on the check. Keith could go to a check-cashing business. However, he knows that he must pay a fee to this business to cash his check.

Keith wants to keep all the money he earned, so he goes to a bank. If he goes to the right bank, he can cash his check free. Keith could go to the bank named on the check. That is Sound Sure Bank. If Keith had his own checking account, he could go to his own bank.

The Sound Sure Bank is near Grant's Grocery Store, so Keith goes there. The bank employee who works behind the counter is called a **teller**. The teller asks to see identification, or something with Keith's picture, signature, and name on it. The teller must be sure he is giving the money to the person whose name is on the check. Keith shows the teller his driver's license. It has his name, picture, and signature on it.

Keith must **endorse** the check. This means he must sign his name on the back of the check. The teller

Think About It

Why is it important to bring identification with you to the bank?

► **Everyday Tip**
Always count your money
before leaving a bank or
ATM machine.

checks Keith's signature against the signature on Keith's driver's license. They look the same, so the teller gives Keith \$85.30 in cash. Keith counts the money to make sure it is the right amount before he leaves the bank.

Practice

On a separate sheet of paper, write two reasons why Keith was wise to use the Sound Sure Bank to cash his paycheck.

15-4 Creating a Budget

Think back to Keith's problem. He spent his money quickly and was unsure of what he had bought. Keith wants to be more careful about spending his money from this paycheck. However, he wants to buy new sneakers. Keith would use his whole paycheck if he bought the sneakers. He knows he has other expenses, or payments he must make. If he buys sneakers, he will not have enough money for his car payment, insurance, and gas.



Computer banking software makes it easy to keep a budget.

Keith needs to set up a **budget** to help him manage his money. A budget is a plan for spending money. A budget is a way to take control of your money.

Maybe you do not have a job. The only money you have might be an allowance. A budget can still help you buy the things you want or need. Sticking to a budget will also keep you from wasting your money. You will not buy things you do not really want or need.

Setting Up a Budget

To begin making a budget, list your expenses for each week or month. Here are Keith's monthly car expenses.

<i>Car payment</i>	<i>\$120</i>
<i>Car insurance</i>	<i>100</i>
<i>Gas</i>	<i>60</i>
<i>Total</i>	<i>\$280</i>

Keith also sets aside \$50 a month for movies, snacks, and other fun things. Keith might spend more or less than \$50 on these things each month. Some of your expenses may change every month, too. However, Keith needs to stay on his budget in order to learn how to manage his money. Here are Keith's total expenses for a month.

<i>Car expenses</i>	<i>\$280</i>
<i>Entertainment</i>	<i>50</i>
<i>Total</i>	<i>\$330</i>

The other part of setting up a budget is figuring out your income. If Keith works 20 hours in a week, he gets a check for \$85.30 for that week. In four weeks his income will be four times \$85.30, or about \$340. However, Keith needs most of his income to pay his expenses. After Keith pays these expenses, he has only \$10 left over. See page 214.

\$340	income from his job
- 330	expenses for his car and fun things
\$ 10	

Practice

Keith only has \$10 a month left over. Answer these questions on a separate sheet of paper.

1. How many months would Keith have to save to buy sneakers that cost \$80?
2. How many months would Keith have to save to buy a new tire for his car that costs \$50?

15-5 Staying on a Budget

Using Technology

Some banks allow customers to transfer money between accounts. You might transfer money into a savings account online for a future purchase.

Keith still wants to buy new sneakers. However, he wants to stay on his budget. So he will have to save for the sneakers. He must make his car payment. If he cannot make payments, the company that sold him the car will take it back.

The law says he must have car insurance. If he does not pay his insurance bill every month, his insurance will be canceled. Then Keith will not be able to drive.

If Keith really wants those sneakers, he might be able to increase his income. He could work more hours at his job on weekends. His grandmother gave him \$20 for his birthday. He can add that to his savings.

Keith could also lower his expenses. For example, he could spend less than the \$50 in his budget for entertainment and put any money he did not spend toward the sneakers. Keith must remember not to spend more than \$50 on fun things. If he spends an

extra \$5 on pizza, he will have only \$5 left over that month to save for the sneakers.

Keith might also be able to save money by spending less on gas. Maybe he could walk places more often or ride with friends. He could also take the bus. If his car needs a new tire or a repair, Keith would have to spend some of the money he has saved to fix his car. Then he will have to wait even longer for his sneakers.

Different Budgets for Different Needs

As Keith knows, having a car is very expensive. He spends most of his paycheck on his car. However, Keith really enjoys having a car. He is willing to spend most of his money on it.

Keith's friend Joy does not have a car. However, she still has to make a budget for her expenses. Joy is saving money from her job for something different. She wants to go to college after she graduates from high school. Joy has set up a budget to help herself reach this goal. She wants different things than Keith does, so her budget is different from his. Here are Joy's monthly expenses.

Clothing	\$ 60
Entertainment	40
Savings for college	200
Total	\$300

Joy's parents earn more than she does. However, they know it is still wise to manage your money, no matter how much you have. Like Joy, they have a budget. Here are their monthly expenses.



You can use a calculator to help you balance your budget.

Home mortgage payment	\$800
Electricity, gas, and water bills	150
Car payment	350
Gasoline	150
Credit card payment	300
Food	350
Entertainment	70
Clothing	120
Total expenses	\$2,290

Practice

On a separate sheet of paper, plan a budget for a teenager who earns \$400 a month. Then show your budget to a partner. Discuss how your budgets differ. Share your budgets with the class.

15-6 Planning Ahead

Together, Joy's parents earn about \$2,800 a month. After they pay their expenses of \$2,290, they have \$510 left over. Here is what they do with that \$510.

Savings to send Joy to college	\$160
Savings for their own retirement	250
Savings for emergencies	100
Total	\$510

Joy's parents want to pay for Joy's college. However, they must also plan ahead for their own retirement. Retirement is the period after a person stops working and earning income. Many people retire at the age of 65.

Social Security is a government-run retirement savings program. While Joy's parents work, a certain amount of

money is taken out of their paychecks for Social Security. After Joy's parents retire and reach the age of at least 62, they will receive a check each month from the United States government. This Social Security check will help them pay some of their expenses.

However, Joy's parents know the Social Security checks will not be enough to pay for all their expenses. That is why they are saving some of their income now for their retirement in the future.

Joy and Keith could start saving for their retirement now, too. It seems far away, but it is best to start saving for retirement as soon as you can.

Joy's parents also set aside money for unexpected expenses or emergencies. Joy and Keith should do that, too. Planning ahead for emergencies and unexpected needs is part of living on your own.

How Budgets Help You

Setting up a budget does not mean you have to save all your money. It does not mean you cannot buy the things you want. Instead, a budget can help you keep track of your money and learn to spend it wisely. That way, your money will not seem to disappear.

Having a budget also makes you think about how you spend money. You may think of more ways to save money. You may also find ways to buy more with whatever money you have. For example, suppose you decide to spend less on movies each month in order to save more money. You might rent a videotape instead of going to a movie theater.

Setting up a budget can help you reach your goals. A budget helps you work toward your goal, step by step.

Money Decisions

Sometimes you have to make difficult decisions about money. Knowing what is important in your life will help you make these decisions.

Think About It

Why is being able to manage your money an important part of living on your own?

Remember

Identify your needs before you choose a job. Money may not be the most important thing.

The way you use money shows what is important to you. For example, you might decide to buy a small gift for a parent instead of something for yourself.

You might even pass up a chance to work for pay. Instead, you might volunteer by donating your time. For example, you might help at an animal shelter or a day care center.

Everyone needs some money. However, do not ever let your need for money tempt you to do things that are harmful or against your beliefs. For example, people who value honesty would not keep money they did not earn. They could not enjoy spending it.

Learning how to make decisions about money is part of preparing to live on your own. Being able to manage your money is a valuable skill. It will help you the rest of your life.

Practice

Suppose you earn \$50 per week. On a separate sheet of paper, write a budget for yourself. If you run short of money, how can you fix your budget?

YOU DECIDE

How to Manage Money Wisely

Read the situation below. Then help Keith decide what to do.

Think back to Keith's problem at the beginning of the chapter. He was having trouble managing his money. Keith realized that he had to be more careful about what he spent his money on.

Keith still wants a new pair of sneakers that cost \$80. However, he does not want to save \$10 a month to buy them. He wants them as soon as possible so he can wear them at track practice.

Right now, business is slow at Grant's Grocery Store. That means Keith cannot work extra hours at the store to make more money. He has to think of other ways to increase his income or lower his expenses.

On a separate sheet of paper, follow the steps below to help Keith make a decision.

STEP 1 Identify the decision Keith must make.

STEP 2 List Keith's choices.

STEP 3 Cross out any choices that are harmful or might be against Keith's beliefs.

STEP 4 Think about the possible results of the remaining choices.

STEP 5 Select the best choice.

STEP 6 Explain how Keith would carry out those choices.

STEP 7 Describe the possible results of Keith's choices.

Make a Difference

What advice would you give Keith about saving up for the new sneakers?

Chapter

15

Review

Summary

Businesses pay their employees with paychecks. A paycheck stub shows earnings and deductions.

To cash a check, go to a bank or check-cashing business and prove who you are. A driver's license is a good document to use.

A budget is a spending plan. To set up a budget, list your expenses and income.

Staying on your budget is important. It helps you have enough money to pay your expenses.

People save money for small and large items. They save to meet their goals. People also save for retirement and for emergencies.

Setting up a budget gives you more control over your money. It helps you pay your bills and save for the things you want.

Vocabulary Review

Write *true* or *false*. If a statement is false, change the underlined word or words to make it true. Use a separate sheet of paper.

1. The amount an employee receives after deductions are taken out is gross pay.
2. A form that is attached to a paycheck is a paycheck stub.
3. A plan for spending money is a deduction.
4. The amount of money you earn is your income.
5. A bank employee who works behind the counter is a teller.
6. A government program that takes money out of each employee's paycheck is retirement.
7. When you sign your name on the back of a check, you endorse it.

Chapter Quiz

Write your answers in complete sentences.

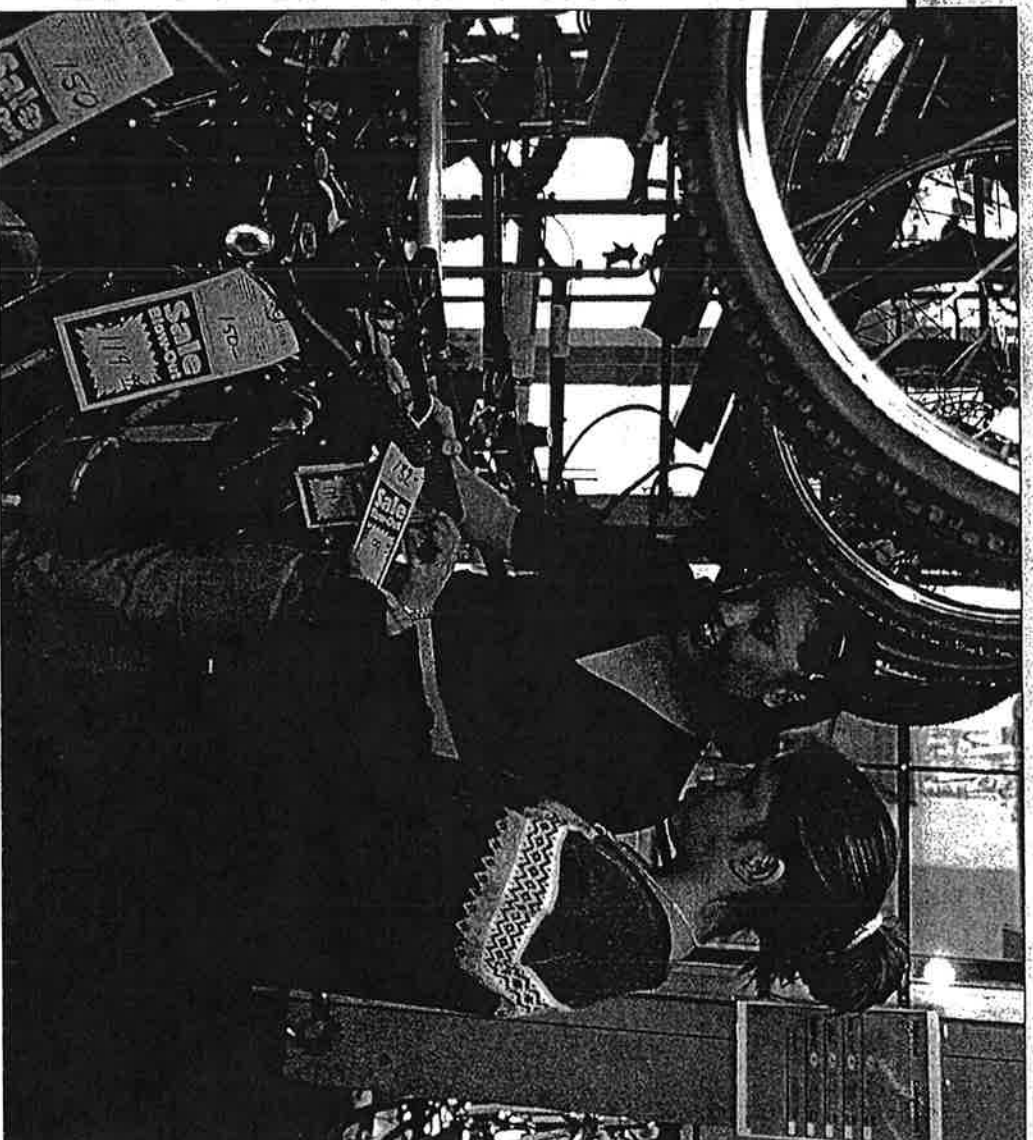
1. What kind of information is on a paycheck?
2. What kind of information is shown on a paycheck stub?
3. Where can you go to cash a check?
4. Why do banks ask people for identification before they cash their checks?
5. Do you need to have a full-time job before you set up a budget? Why or why not?
6. What are two things you could do if you wanted to save more money?
7. **CRITICAL THINKING** Why should you start saving for your retirement even if you are very young?

Writing Activity

Some parents require their teens to save a certain part of their income. Do you think this is fair? Should teens be forced to save? Why or why not? Write your ideas in a paragraph on a separate sheet of paper.

Group Activity

Work with a partner to set up a budget for Pam. Pam gets an allowance of \$10 every Sunday. However, she usually spends it all by Wednesday. Pam and her friends stop for pizza every day after school. Pam always buys a slice of pizza and a soda. List ways she could have fun with her friends without spending money.



When you shop, think about the things you really need, and find the best prices for them. How can a sale help you choose what to buy?

Learning Objectives

- Explain the difference between a want and a need.
- Describe how setting up a budget can help you be a wise consumer.
- Identify ways that ads try to convince people to buy things.
- List things that make someone a wise consumer.
- Explain what you can do if you are not happy with a product.

Words to Know

need something you must have

want something you would like but can do without

impulse a sudden act, done without thinking it through

unit pricing how much a product costs per unit of weight or volume

refund a return of money

exchange a trade of one item for another

warranty a written promise that a product will work for a certain amount of time

service contract a written promise by a store or company to fix a product if it breaks within a certain time

You might have friends like Bonita and Shakira in the story below. They both have the same amount of money for clothing, but they spend it differently.

When Bonita starts her new job, she looks like a fashion model. She has the newest style of skirts, shirts, and shoes, along with the latest haircut. By the end of the year, Bonita is bored with her clothes. Yet she cannot afford to buy the newer styles she wants.

Shakira has enough clothes to make her happy. She never buys clothes she knows she will tire of easily. No matter where she goes, Shakira has the right thing to wear. She always looks and feels comfortable.

Shakira is a wise consumer. Unlike Bonita, who spends her clothing money quickly, Shakira knows how to make the most of her money. This chapter will help you learn how to become a wise consumer. You will learn when to buy and when not to buy clothes, CDs, sports equipment, or anything else.

16-1

Understanding Needs and Wants

People buy things for many different reasons. They often tell themselves that they need to buy something. Yet they often just want it and do not really need it. People really need food, water, and protection from the weather. Students often need notebooks, pencils, bus fare, and lunch money.

People want many other things. Some might want in-line skates or a fancy haircut they saw in a magazine. Or they might want the latest jeans or a ticket to a concert. These are not needs. They are wants. A **need** is something you must have. A **want** is something you would like but can do without. Living without a want will not cause any harm.

Think About It

Could a *want* ever become a *need*? Could a *need* ever become a *want*? Explain.

Practice

On a separate sheet of paper, list three things you might need to buy. Then list three things you might want to buy. Compare your lists with a partner. Then discuss these questions.

1. What should a person buy first—the things he or she needs or the things he or she wants? Why?
2. Do you think some people should change the way they spend their money? If so, what changes should they make?

People have other kinds of needs besides physical ones. For example, people who buy a car need to make car payments. People who make long-distance phone calls need to pay their telephone bills. If they do not pay these bills, the companies will take back their cars or disconnect their telephone service.

Steve bought a car he wanted. Now he needs to make his car payments. The car Steve wanted has become a payment he needs to make.

If you buy all the things you want, you may not have enough money for all the things you need. For example, if you spend all your money on the jeans you want, you may not have the bus fare you need to get to school or work. To avoid these problems, you can set up a budget and stick to it.

Think back to Shakira from the beginning of this chapter. In August, Shakira had enough money to buy clothes for the winter. Shakira carefully looked over the clothes she



Be sure to buy the things you need before the things you want.

Remember
A budget is a plan
for spending.

already had. She decided what new clothes she needed. Then she made a budget. By keeping to her budget, she bought the clothes she needed. Her budget kept her from wasting her money on fashions she knew would quickly go out of style. They were too expensive to be in Shakira's budget.

Bonita had the same amount of money for clothes. However, Bonita did not have a budget. She started shopping by looking through fashion magazines. Then she bought the latest styles until her money ran out. It did not take long. The latest fashions were very expensive. Bonita could buy only a few things. Now her friends and family have to hear her say, "I don't have a thing to wear!"

Practice

Suppose you had \$100 in your budget to spend on clothes. How would you spend it? Explain your choices on a separate sheet of paper.

16-3 Looking Closely at Ads

Bonita spends money without thinking. She lets herself be influenced by advertisements. Ad writers find many ways to get people to buy things that they may not need. Here are some ways.

1. Some ads try to make you feel that you should buy something because everyone else has it, and you don't want to be left out.

2. Some ads use famous people to sell a product.

A movie star or famous model may say a certain shampoo makes her hair shiny. Some people believe what these stars say. However, the stars are actually paid to say these words. The words were written by someone at the shampoo company.



Famous people often
advertise products.

3. Ads for cosmetics or exercise equipment may say a product will make you more attractive than you ever expected to be. However, the models in these ads were probably attractive to begin with. Most people are never going to look like the models in the ads. It does not matter how much skin cream, make-up, or exercise equipment they buy.

4. Many food, drink, and cigarette ads use this message: "Use this product and you will have more fun." They show people having fun together. You are supposed to think they are having fun because they are eating a certain brand of snack or drinking a certain soda. You are not supposed to remember that too many snacks and sodas are not part of a balanced diet or that smoking cigarettes will cause health problems.

5. Some ads try to give you the feeling that the people speaking are your friends and are telling the truth. These ads use ordinary, friendly people, not fashion models. The people smile and tell you they were not sure this product would work. Then they tried it, and it worked. They would not be happy without it. You need it, too. Trust them. This is not necessarily the truth. These words were written by writers, not the people who said them.

6. Ads make it appear that the products will solve any problem someone might have. Most people want to solve their problems, so they buy the product. When you read or hear an advertisement, ask yourself whether it is telling the truth.

► **Everyday Tip**

When you see an advertisement, ask yourself whether it is really telling the truth.

Practice

Find three examples of the kinds of ads described on pages 226 and 227. Look in magazines or newspapers. Then show the class what you found. Write whether the ads convince you to buy the products, and why.

When you are thinking of buying something, ask yourself whether you need it. If you do not really need it, check your budget. After you pay for the things you need, decide whether you have enough money left over to buy the item.

After you are sure you need something, gather information about it. If you plan to buy new clothes, check out different brands. Look for brands that are comfortable and attractive. Avoid any brands that might shrink, fade, or fall apart. Choose clothes that you like.

If you ask friends which brands they like, ask why they like them. Do they like a brand because they can wear it for a long time? Do they like it because a favorite movie star wears it? Read newspaper ads. Find out if the item you want is on sale, and compare prices.



Don't let your friends talk you into buying something you really do not need.

Do not let others talk you into buying things you did not plan to buy. Later, you may be sorry you wasted your money.

When you shop, go to several stores and compare prices. Look for sales. If something on your list is on sale, consider buying it. But do not buy something just because it is on sale. You might decide later that you really do not like it. Also, it might not be in your budget. You will be spending money that you need for something else.

Remember, you are not saving money if you never use, wear, or eat what you bought.

Another way to make your money last longer is to shop at less expensive stores. Think about shopping at factory outlets or discount stores. These stores often sell designer clothing at lower prices. Sometimes, this clothing is not perfect. But the problem may be something no one will notice or that you can fix. Check a product carefully before you buy it.

Shopping at a Supermarket

With so many different items to choose from, a supermarket can be a confusing place. Make a list of what you need and stick to it. Avoid **impulse** buying.

An impulse is a sudden act that is done without thinking it through. Supermarkets often put magazines and snacks beside the checkout lines. While people wait, they see these things and buy them on impulse. To avoid wasting money, remember your budget. If you buy things on impulse, you may not be able to buy things you really need.

► Everyday Tip

Try not to shop for food when you are hungry. All of the food will look good. Then you will want to buy things you do not need or want.

Another way of shopping wisely is to check the **unit pricing** on different items. Unit pricing is how much a product costs per unit of volume or weight. A unit could be an ounce, a pound, a serving, or a single item.

For example, one cereal might cost \$.34 an ounce while another brand of the same cereal might cost \$.47 per ounce. Unit pricing lets you compare brands to see which costs less. You can also compare small and large packages of the same brand to see which is a better buy. You will find a product's unit pricing on a small sign on the store shelf where the product is displayed.

Stores often sell their own brands of things. Buying store brands can usually save you money. They are cheaper than the name brands. Some are just as good as other brands.

Try looking for "quick-sale" items. Many stores mark down meat or bread that must be sold quickly or be thrown away. Often you can save money by buying these items. Still, you must eat or freeze them right away. If you keep them without freezing them, they will spoil or get stale.

Buy food in large packages, which usually cost less than smaller ones. But check the unit price first to make sure it is cheaper. As soon as you get home, divide the food into meal-sized portions. Then freeze it right away.

Think About It

Why do some people prefer to buy name brands rather than a store's own brands of food?

Practice

Suppose one box of cereal weighs 24 ounces and costs \$3.60. A smaller box of the same cereal weighs 16 ounces but is on sale for \$2.24. On a separate sheet of paper, figure out which box costs less per ounce.

When you want something, you do not always have to buy it. Borrowing from friends and family is one way to avoid spending.

For instance, if you buy a suit or a dress for a special occasion, you might wear it only once. Then it will just hang in your closet. Instead, consider borrowing something to wear from a friend. However, remember to be responsible and have the clothing cleaned before you return it. Do not forget to return it on time.

Trading is another way to save your money. Suppose you need to type a report you just wrote and you do not have a computer. However, your friend has a computer. Your friend might let you use the computer if, in return, you wash your friend's car.

Another way to save money is to shop at secondhand stores and garage sales. Slightly used things can be good bargains. You might find a sweater or even a computer at a very low price.

When Something Goes Wrong

You may buy a product such as a pair of shoes or a hair dryer that you are not happy with when you get home. The shoes might be too small or the hair dryer might not work. You do not always have to keep these things.

You can usually take an item back to the store and get a **refund**, which is a return of money. Or you can ask for an **exchange**, which is a trade of one item for another. That way, you can get shoes that fit or a hair dryer that works.

If a hair dryer does not work, you might want to try another dryer of the same kind. Then you would ask for an exchange. However, if a shirt changed colors in the wash, others like it would probably do the same thing. In that case, you should ask for a refund. Then you can buy a different kind of shirt, maybe at a different store.

Did You Know?

Stores are required by law to explain their return policy to customers. Always ask for this when you make a big purchase.



You can usually return an item for a refund, unless the store's policy is for exchange or credit only.

When you return something to the store, be polite. Remember that the store probably did not mean to sell you something that does not work. Calmly explain why you do not want to keep the product. Then ask for a refund or an exchange. Be firm, but polite.

Successful Returns

Two ways to increase your chances of getting a refund are to save your sales slips and to know the return policy. A sales slip proves you bought the item from that store. It shows when you bought it and how much you paid. If you do not have the sales slip, some stores will not give you a refund or exchange for what you bought.

Other stores may give you credit toward another purchase. This means you cannot get your money back. You can get something else in the store that costs the same. You only get credit for what you paid.

Most stores insist that you have a sales slip to return an item. Some stores will allow you to return items only for a certain amount of time after you buy them. Other stores might not allow any returns. You have to be sure you want the item before you buy it.

There is another good reason to save your sales slips. You can use them to keep track of how you have spent your money. Receipts and sales slips help you when you are making your budget.

Practice

Talk with a partner about what happened when either of you tried to return things to stores. Were you happy about how the store treated you? What could you do differently the next time? Write your experiences on a separate sheet of paper.

Reading Warranties and Service Contracts

16-6

Suppose you used a hair dryer for a month and then it stopped working. In this case, a **warranty** might help. A warranty is a written promise that the product will work for a certain amount of time. Some warranties are for a year.

Many products that have motors also have warranties. The warranty might be printed on the box or on a paper inside the box. Sometimes you might have to



Using Technology

You can find information on extended warranties, new products, and the location of service centers, on a company's Web site.

IN-LINE SKATES LIMITED WARRANTY

Completion of the warranty registration form gives you valuable rights. If you, the purchaser, complete your attached registration form and mail the original to IN-Line Skates, Inc., P.O. Box 082349, Somewhere, NJ 12345 within 10 days of your purchase or receipt of the skates as a gift, your IN-Line skates will be covered by the Limited Warranty described here. **Limited Warranty:** Subject to registration, your new IN-Line Skates are warranted by an IN-Line dealer within six months of the purchase of your skates from the company. Skates furnished as replacements will continue to be covered under the Limited Warranty until six months from the date of the original purchase.

This is a limited warranty for In-Line skates.

fill out a card and mail it to the manufacturer to get a warranty on what you bought.

The warranty will explain what to do if the product stops working. You might have to take it back to the store or mail it to the manufacturer. Before you buy an expensive product, read its warranty carefully. It might cover only part of the cost of repairing the product. It might be wiser to buy something with a better warranty.

You might also buy something that would cost a lot to repair, such as a stereo or an air conditioner. Then the store may offer to sell you a service contract. A **service contract** promises to fix a product if it breaks within a certain time. One service contract may promise to fix the product for free if it stops working within a year. Another service contract might warranty a product for two or three years. Some contracts promise to replace parts that break, but you must pay the cost of the labor.

Think carefully before you buy a service contract. It might cost more than the actual repairs. If you do not need repairs during the time of the contract, you cannot get your money back.

Consuming Wisely

Being a wise consumer means buying what you need first. Then you can use any extra money to buy what you want. It also means remembering that ads are designed to get people to buy products. They are not written to explain anything bad about a product.

The tips in this chapter should help you make the most of your money. Learning to spend money wisely is one more way to get ready to live on your own.

Practice

Write a letter to a friend explaining the difference between a warranty and a service contract. Tell your friend when it is better to buy a service contract.

YOU DECIDE

What Wise Consumers Do

Read the situation below. Then help Anthony decide what to do.

Anthony and Kurt are at the mall. Anthony has found a pair of jeans he really likes that costs \$45. Anthony has \$50 in his budget for new jeans. However, Kurt wants Anthony to buy a different pair. Kurt likes the designer pair he saw someone wear in a movie. The designer jeans are on sale today for only \$35.

On a separate sheet of paper, follow the steps below to help Anthony decide which pair to buy.

STEP 1 Identify the decision Anthony must make.

STEP 2 List Anthony's choices.

STEP 3 Cross out any choices that are harmful or might be against Anthony's beliefs. For example, telling Kurt to mind his own business would be rude.

STEP 4 Think about the possible results of the remaining choices.

STEP 5 Select the best choice.

STEP 6 Explain how Anthony would carry out this choice.

STEP 7 Describe the possible results of Anthony's choice.

Make a Difference

What advice would you give Anthony if a friend tells him to buy something different from his own choice?

Chapter

16

Review

Summary

A need is something you must have, like food. A want is something you would like to have but could do without, like new jeans.

Ads try to convince people to buy things. Before you read ads, decide what you want and what you really need to buy.

Make sure you need or can afford what you plan to buy. Gather information so you know which brand to buy and where it is on sale. Do not let other people influence you to buy something you do not want or need.

When you shop, compare prices at several stores. Buy things based on what is important to you, such as style, cost, or fit. Be wise about buying on sale.

Avoid impulse buying. Before you go to the supermarket, make a list of what you need. Be sure to check the unit pricing of items.

Before you buy anything, find out the store's return policy. Save your sales slips to make returning things easier.

Read product warranties and service contracts carefully. Service contracts may cost more than they are worth.

Vocabulary Review

Write a term from the list that matches each definition below.

- | service contract | |
|------------------|--|
| want | 1. a return of money |
| unit pricing | 2. a sudden act |
| exchange | 3. something you would like but can do without |
| warranty | 4. a written promise that a product will work for a certain amount of time |
| impulse | 5. a trade of one item for another |
| need | 6. something you must have |
| refund | 7. the price per unit of weight or volume |
| | 8. a written promise by a store or company to fix a product if it breaks within a certain time |

Chapter Quiz

Write your answers in complete sentences.

1. What are two examples of a need and two examples of a want?
2. What should you buy first—things that you need or things that you want? Why?
3. When should you buy something that is on sale?
4. What is the difference between a refund and an exchange?
5. Why is it important to save sales slips?
6. If a store offers you a service contract, should you buy it? Why or why not?
7. **CRITICAL THINKING** How can taking a list to the grocery store help you save money?

Writing Activity

The United States government has laws called “truth in advertising.” That means companies are not allowed to say things about their products that are not true. Find an ad that you think goes against these laws. Write a paragraph explaining what the ad says. Tell why you think the ad does not tell the truth about the product.

Group Activity

You want to buy a new bike. Talk with a partner about four features you are looking for and four things you would do before buying the bike. Together, make a checklist of these items. Make copies of the checklist to share with the class. Compare your ideas.

14 Writing Checks

Exercise 55

Skill 14.2

Practice

Read the information below and fill in each check.

1. Susan needs to pay for groceries that she bought at SuperStore. The total is \$23.69. Fill out this check as Susan would.

Susan Kellner 3 Home Street Cincinnati, Ohio 45219		55-555/1234 7654321	NO. 143
DATE _____			
PAY TO THE ORDER OF _____		\$	<input type="text"/>
		DOLLARS	
Sound Sure Bank 1 Corporate Square Cincinnati, Ohio 45201			
MEMO _____			
⑆087123528⑆ 0823104⑆ 143			

2. Susan also needs to write a check to her brother, Ken Kellner. She borrowed \$45 from Ken and is now paying him back. Fill out this check as Susan would.

Susan Kellner 3 Home Street Cincinnati, Ohio 45219		55-555/1234 7654321	NO. 144
DATE _____			
PAY TO THE ORDER OF _____		\$	<input type="text"/>
		DOLLARS	
Sound Sure Bank 1 Corporate Square Cincinnati, Ohio 45201			
MEMO _____			
⑆087123528⑆ 0823104⑆ 144			

14 Making a Deposit**Exercise 56**

Skill 14.2

Practice

Read the information below and answer the questions.

1. Susan wants to make a bank deposit. She is going to deposit her paycheck of \$78.90, plus \$23.50 in cash that she earned baby-sitting. She is not going to keep any cash. Fill out her deposit slip for her.

DEPOSIT TICKET PLEASE PRESS FIRMLY	Susan Kellner 3 Home Street Cincinnati, Ohio 45219		CASH		CURRENCY		
					COIN		
	DATE _____		LIST CHECKS SINGLY				
	DEPOSITS MAY NOT BE AVAILABLE FOR IMMEDIATE WITHDRAWAL						
	SIGN HERE FOR CASH RECEIVED (IF REQUIRED)						
	Sound Sure Bank 1 Corporate Square Cincinnati, Ohio 45201		TOTAL				
			LESS CASH RECEIVED				
			NET DEPOSIT				
	<small>CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT.</small>						

55-555/1234
7654321

BE SURE
EACH ITEM
IS PROPERLY
ENDORSED

2. Susan did not baby-sit this week and is just depositing her paycheck of \$78.90. She wants to keep \$20 in cash from her paycheck. Fill out her deposit slip for her.

DEPOSIT TICKET PLEASE PRESS FIRMLY	Susan Kellner 3 Home Street Cincinnati, Ohio 45219		CASH		CURRENCY		
					COIN		
	DATE _____		LIST CHECKS SINGLY				
	DEPOSITS MAY NOT BE AVAILABLE FOR IMMEDIATE WITHDRAWAL						
	SIGN HERE FOR CASH RECEIVED (IF REQUIRED)						
	Sound Sure Bank 1 Corporate Square Cincinnati, Ohio 45201		TOTAL				
			LESS CASH RECEIVED				
			NET DEPOSIT				
	<small>CHECKS AND OTHER ITEMS ARE RECEIVED FOR DEPOSIT SUBJECT TO THE PROVISIONS OF THE UNIFORM COMMERCIAL CODE OR ANY APPLICABLE COLLECTION AGREEMENT.</small>						

55-555/1234
7654321

BE SURE
EACH ITEM
IS PROPERLY
ENDORSED

Exercise 57

Practice

- [illegible]

- 1. What is Susan's final balance?**

[illegible]

- Source: <http://www.legis.state.nj.us/old/legis/statutes/17/1701.htm>

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-

You have received the letter below from your cousin Eric, who lives in another state. He is asking for your advice about managing his money. Write back to Eric, offering some sound advice about managing his money.

Dear Cousin,

I can't decide whether to put my money in a checking account or a savings account.

I make about \$63.50 a week working part-time during the school year. I share a car with my brother and pay half of the payments and insurance. That comes to about \$180 a month. I spend about \$15 a week on movies and snacks after school.

What do you think? Should I put my paycheck into a savings account? I know I would get more interest there.

Sincerely,

Eric


Dear Eric,

15 Analyzing a Paycheck**Exercise 59**

Skill 15.1

Practice

Here is a check that Eric received for working at Sydney's Deli. Look it over carefully. Then read the statements below. Write *true* or *false* after each statement. Then explain your choice.

 Sydney's Deli 24 Broad Street Knoxville, TN 37915	DATE 07/23/01	CHECK NO. 1248
	AMOUNT \$170.40	
PAY One Hundred and Seventy and 40/100 dollars		
TO THE ORDER OF Eric Connor 4276 Roberts Lane Knoxville, TN 37912		
SECOND CITY BANK 1 Clarkson Drive Knoxville, TN 37901		
AUTHORIZED SIGNATURE <u>Sydney Varner</u> ACCOUNTANT		
⑆081788000⑆ 0823954⑈ 1248		

- Eric lives at 24 Broad Street in Knoxville, TN. Explain your choice.

- Eric must cash this check by July 23, 2001. Explain your choice.

- Sydney Varner signed this check. Explain your choice.

- Sydney's Deli keeps its money at Second City Bank. Explain your choice.

- Because \$170.40 is written on this check twice, the check can be cashed for \$340.80. Explain your choice.

- Eric wrote in the \$170.40 amount. Explain your choice.

- This is Eric's 1,248th check from Sydney's Deli. Explain your choice.

15 Understanding a Paycheck Stub**Exercise 60**

Skill 15.2

Critical Thinking

Below is Eric's paycheck stub. He earns \$6 an hour at Sydney's Deli.
Study his paycheck stub carefully. Then answer the questions.

EMPLOYEE NAME	EMPLOYEE ID			Sydney's Deli 24 Broad Street Knoxville, TN 37915		
Conner, Eric	234-98-1009					
ISSUE DATE	PAY PERIOD ENDING					
07/23/01	07/20/01					
EARNINGS DESCRIPTION	HOURS	CURRENT	YTD	DEDUCTIONS DESCRIPTION	CURRENT	YTD
Weekly Pay	40	240.00	2160.00	FIT	18.00	162.00
				FICA	36.00	324.00
				State Tax	12.00	108.00
				City Tax	3.60	32.40
NET PAY					170.40	
STATEMENT OF EARNINGS AND DEDUCTIONS • DETACH AND RETAIN FOR YOUR RECORDS						

- How many different kinds of taxes were taken out of Eric's paycheck?

- Find 2160.00 under the heading YTD. What is this amount?

- How much state tax has been deducted from Eric's pay so far this year?

- If Eric had worked 20 hours instead of 40 hours, what would the number under the Current heading be?

- After the deductions are subtracted, is Eric's net pay of \$170.40 correct?
How do you know?

Exercise 61

Critical Thinking

Pacemaker
ills for Independent Living Copyright © by Pearson Education, Inc., publishing as
Fearon. All rights reserved.

15 Sorting Out Expenses

Skills 15.4

Exercise 62

Practice

Help Tony set up his budget. Read below to see how much he earns and how much he spends. List his income and expenses in the chart. Then answer the questions that follow.

"I just got a new job. I also just got a new car. My aunt made the down payment on the car, but I have to make the monthly payments. They are \$125 a month. Then there is my car insurance. I can't avoid that, no matter how much I would like to. The insurance payment is due every six months and is about \$500.

"Even just having fun costs money. My girlfriend loves to go to the movies. One week she pays. The next week I do. We usually get ice cream afterwards. It costs me at least \$25 when it is my turn to pay.

"I forgot about gas for my car. So far, that is about \$20 a week. But I figure I can keep it down to \$15 if I try.

"I work about 15 hours a week after school. I make \$5.50 an hour clearing tables at a restaurant. But my paycheck is not \$82.50. It is only about \$65 after taxes.

"So what do you think? Will I have enough money each month?"

1.

Tony's Monthly Income	Tony's Monthly Expenses

2. Figure out whether Tony's income will cover his expenses. Tell him what you discovered.

3. Give Tony some advice about balancing his budget.

Marney has just gotten a new part-time job. She will work 20 hours per week and her pay will be \$6.00 per hour. Marney asked her boss what her net pay would be, and he gave her the following information.

Each week, the following deductions will be taken out of Marney's paycheck.

Federal tax	15% of gross pay
State tax	5% of gross pay
Social Security tax	7.5% of gross pay
City tax	1.5% of gross pay

Answer the following questions about Marney's income.

1. How much money will be deducted each week for each tax?

Federal tax _____

State tax _____

Social Security tax _____

City tax _____

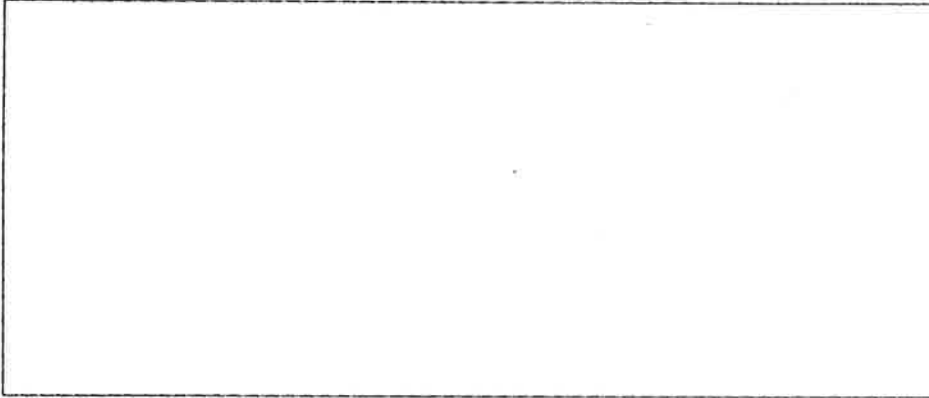
2. What will Marney's net pay be each week? _____

3. Marney needs \$55.00 each week to cover her expenses. She would like to save enough money to buy a new dress for a party. The dress costs \$75, and the party is 15 weeks away. Will Marney be able to save enough to buy the dress?

4. Marney's friend tells her about another job. It pays \$7.00 per hour. The same percentages would be deducted from her check each week for taxes. She could work 20 hours per week. Should Marney take the job? Why or why not?

- A.** Suppose you had \$100 to spend on clothes. How much could you get for that \$100? Use store catalogs, store flyers, or newspaper ads to find clothing that you like. If possible, cut out pictures of the items you chose, plus their prices. Paste or describe them in the box below. Make sure the total cost of the clothing is no more than \$100.

Here is how much I could buy for \$100.



- B.** Answer the following questions based on what you found.

- 1.** Should you always buy the least expensive clothing you can find?
Why or why not?

- 2.** Why might you buy one shirt that costs more than another shirt?

- 3.** What are some good reasons *not* to buy the most expensive brand of something, such as jeans?

Name: _____
Mrs. Cameron

Due Date: _____
General Applied Math/Financial Applications

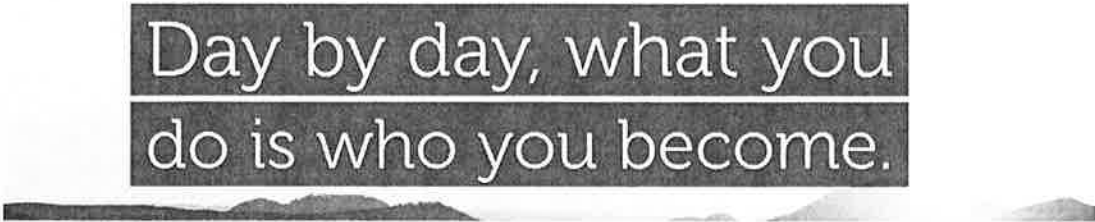
Summative Assignment Packet

In order to maintain the academic progress that you have made this year, it is important to continue to practice your math skills outside of the classroom. In this packet you will find your assignments to be completed to the best of your ability. Homework will be checked for effort and completeness. Please turn in your packet upon return to school.

Directions:

1. Follow the directions on each page.
2. Try Your Best.
3. Hand in your packet by March 27th, 2020.

QUOTE OF THE WEEK:



Day by day, what you
do is who you become.

GEN. APPLIED

The Real Number System

Getting Started

Scan Lesson 4-7 in your textbook. Predict two things you will learn about real numbers.

- _____
- _____

Quick Review

Write the following numbers as fractions in simplest form.

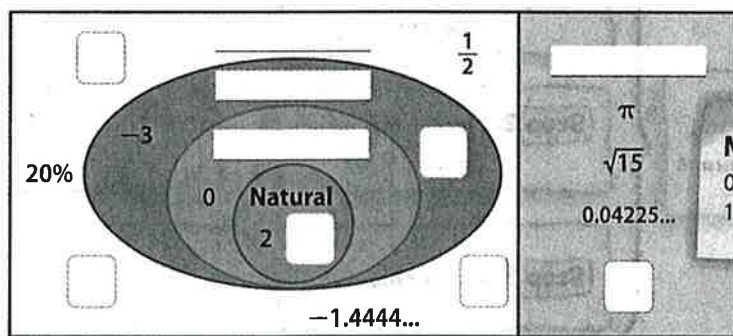
$$4\frac{1}{2}, 0.15, \sqrt{25}$$

Vocabulary Start-Up

You have learned that rational numbers, such as $4\frac{1}{2}$, 0.15 , and $\sqrt{25}$, are numbers that can be written as fractions. **Irrational numbers**, such as π and $\sqrt{15}$, are numbers that cannot be written as fractions.

Label the diagram with the terms *whole*, *integer*, *rational*, and *irrational*. Then complete the diagram using the numbers from the number bank.

Real Numbers



Number Bank

0.8, $2.\bar{2}$, -1 , 1 , $1\frac{2}{3}$, $\sqrt{7}$



Real-World Link

Weather Meteorologists use the formula $t^2 = \frac{d^3}{216}$ to predict the time t in hours a thunderstorm will last when it is d miles across.

- Suppose a thunderstorm is 6 miles across. Write and solve an equation to determine how long the thunderstorm will last. _____
- Suppose a thunderstorm is 12 miles across. About how long will the thunderstorm last? Round to the nearest whole number. _____



Notes

Identify and Compare Real Numbers

Circle the correct phrase to complete each sentence. Explain your reasoning.

1. $0.\overline{67}$ is (less than, greater than) 0.67 .

2. $\sqrt{33}$ is (less than, greater than) 6 .

3. 2.5 is (less than, greater than) $\sqrt{8}$.

4. $\sqrt[3]{100}$ is (less than, greater than) 400% .

Solve Equations

Complete the organizer to solve the equation $x^2 = 10$.

Solve equations with square roots.

Step 1 Write the equation.

Step 2 Definition of Square Root

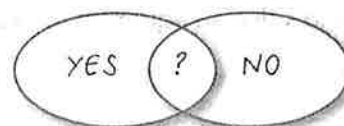
Step 3 Use a calculator.

Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

Are you ready to move on? Shade the section that applies.



For more help, go online to access a Personal Tutor.



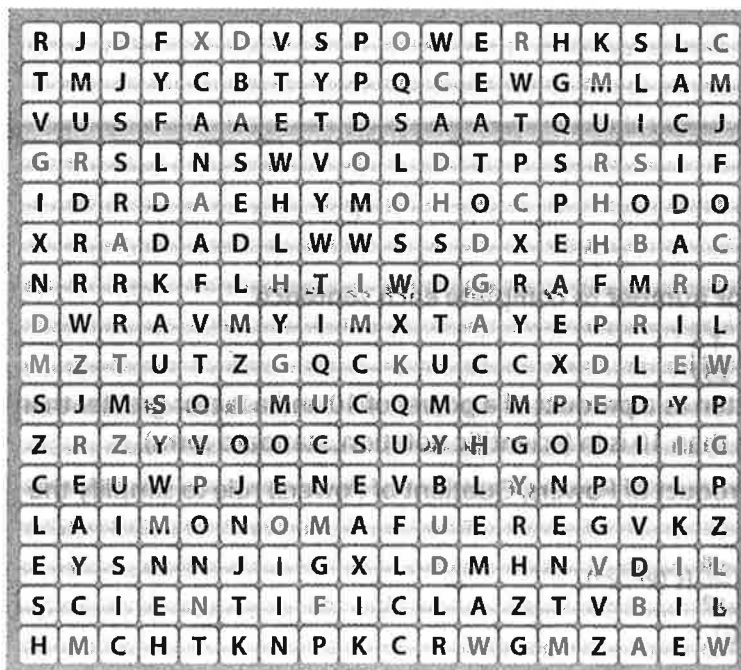
Chapter Review

Vocabulary Check



Fill in the blank with the correct vocabulary term. Then circle the word that completes the sentence in the word search.

- The number 5.2×10^4 is written in _____ notation.
- The _____ tells how many times a number is used as a factor.
- A _____ root of a number is one of its three equal factors.
- In 5^7 , the number 5 is the _____.
- The square of an integer is a _____ square.
- The set of _____ numbers is made up of the set of rational numbers and the set of irrational numbers.
- A _____ sign is used to indicate a positive square root.
- A _____ root of a number is one of its two equal factors.
- A number is written in _____ form when it does not contain exponents.
- A(n) _____ is a number, a variable, or a product of a number and one or more variables.
- The number 6^4 is a _____.
- A decimal that does not repeat or terminate is a(n) _____ number.



Key Concept Check

Use Your **FOLDABLES**

Use your Foldable to help review the chapter.

Exponents and Monomials	
Tape here	Description
	Description
	Description

Got it?

Circle the correct term or number to complete each sentence.

- 5^{-2} is equal to $(-25, \frac{1}{25})$.
- A number that is written as a product of a power of 10 and a factor greater than or equal to 1 and less than 10 is in (scientific notation, standard form).
- You would use the (Product of Powers, Quotient of Powers) rule to simplify the expression $a^5 \cdot a^3$.
- Another way to write $\frac{x^8}{x^4}$ is (x^2, x^4) .
- $\sqrt{36}$ is equal to $(6, -6)$.

Lesson 6-1

Using the Percent Proportion

Getting Started

Scan Lesson 6-1 in your textbook. Predict two things you will learn about the percent proportion.

- _____
- _____

Vocabulary

Write the definition of *proportion* in your own words.



Real-World Link

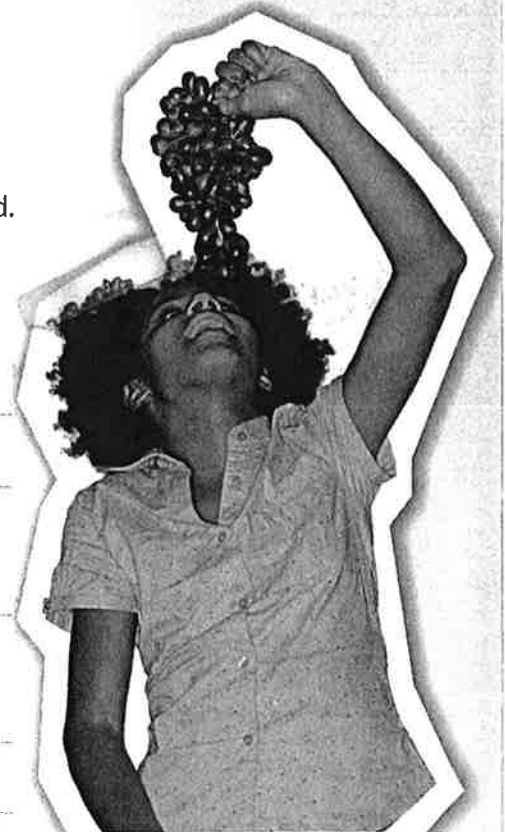
Snacks With four different kinds of fruit, this healthy fruit salad recipe is the perfect lunch box or after school snack!

Fruit Salad

2 cups pineapple
1 cup blueberries
3 cups grapes
2 cups strawberries

- What is the total amount of ingredients needed to make one batch of fruit salad? _____
- Write the ratio comparing the cups of grapes to the total cups needed.

$$\frac{\text{part}}{\text{whole}} = \frac{\boxed{}}{\boxed{}} \frac{\text{c}}{\text{c}}$$
- Write the fraction from Exercise 2 as a decimal. _____
- Solve the proportion $\frac{3}{8} = \frac{p}{100}$. _____
- How does your answer for Exercise 4 compare to your answer for Exercise 3? _____
- What does the ratio $\frac{p}{100}$ represent? _____
- What percent of the trail mix are the sunflower seeds? _____

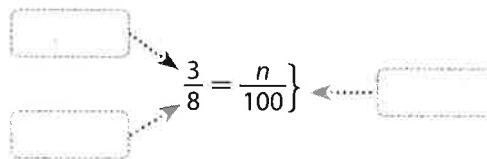


Questions

Notes

Percent Proportion

Label the diagram below with the terms *part*, *whole*, and *percent*.



Types of Percent Problems

Complete the table to show an example of each type of percent problem. The first one is done for you.

Type	Example	Proportion
Find the Percent	6 is what percent of 12?	$\frac{6}{12} = \frac{P}{100}$
Find the Part		
Find the Whole		

Use the percent proportion to find each value.

1. 36 is what percent of 80?

2. What number is 15% of 220?

Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

How confident are you about using the percent proportion? Shade the ring on the target.



For more help, go online to access a Personal Tutor.



FOLDABLES Time to update your Foldable!

Lesson 6-2

Find Percent of a Number Mentally

Getting Started

Scan Lesson 6-2 in your textbook. List two headings you would use to make an outline of the lesson.

•

•

Quick Review

Write each percent as a decimal and as a fraction in simplest form.

75% _____

60% _____

10% _____



Real-World Link

Thrill Rides Do you enjoy thrill rides? *Power Tower* is a thrill ride that is 300 feet tall. Two of the towers blast riders upward and two towers drop riders downward. In both cases, passengers travel 80% of the ride's total height.

- How would you find how far the riders travel on the ride?

- Compatible numbers* are numbers that are easy to multiply or divide mentally. Explain how you could use compatible numbers to mentally find 80% of 300.

- Write 80% as a decimal and as a fraction in simplest form.

	Decimal	Fraction
	↓	↓
80% =	<div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>	<div style="display: inline-block; text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div> </div>

- Is it easier to use the decimal form of 80% or the fractional form of 80% to find 80% of 300? Explain. _____

How far are the riders blasted upward on the ride? _____

- Describe another method you could use to mentally find 80% of 300. _____



Questions

Notes

Find Percent of a Number Mentally

Describe a method you could use to mentally find 40% of 700. Then use that method to find the answer.

Complete the table to show some common percent-fraction equivalents.

Percent-Fraction Equivalents		
25% =	20% =	10% =
50% =	40% =	30% =
75% =	60% =	70% =
100% =	80% =	90% =

Estimate with Percents

Describe a strategy to estimate each value. Use a different strategy each time.

1. 150% of 98

2. 76% of 160

3. $\frac{1}{2}$ % of 280

Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

Are you ready to move on? Shade the section that applies.



For more help, go online to access a Personal Tutor.



Chapter 7

Algebraic Expressions

Chapter Preview



Vocabulary

coefficient	factor	simplest form
constant	factored form	simplifying the expression
Distributive Property	like terms	term
equivalent expressions	linear expression	

Vocabulary Activity

Use the glossary to find the definitions of the terms below. Then draw a line to match each term with the correct definition.

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <i>equivalent expressions</i> 2. <i>term</i> 3. <i>coefficient</i> 4. <i>like terms</i> 5. <i>constant</i> 6. <i>simplest form</i> 7. <i>simplify the expression</i> 8. <i>linear expression</i> | <ol style="list-style-type: none"> a. The numerical part of a term that contains a variable. b. An algebraic expression that has no like terms and no parentheses. c. Expressions that contain the same variables to the same power. d. Expressions that have the same value. e. A term without a variable. f. An algebraic expression in which the variable is raised to the first power. g. To use distribution to combine like terms. h. The different parts of an algebraic expression that are separated by addition or subtraction signs. |
|--|---|

Are You Ready?

Try the Quick Check below.
Or, take the Online Readiness Quiz.



Quick Review

Common Core Review 7.NS.1, 7.NS.2

Example 1

Find $7(-2)$.

$$7(-2) = -14$$

The factors have different signs. The product is negative.

Example 2

Write $8 - 12$ as an addition expression. Then find the value of the expression.

$$\begin{aligned} 8 - 12 &= 8 + (-12) \\ &= -4 \end{aligned}$$

To subtract 12, add -12 .
Simplify.

Quick Check

Multiplying Integers Find each product.

1. $3(-3) =$ _____

2. $-4(2) =$ _____

3. $-7(-4) =$ _____

4. $-4 \cdot 5 =$ _____

5. $-11(-8) =$ _____

6. $9(-6) =$ _____

7. The price of a stock decreased \$2 each day for 5 consecutive days. Write a multiplication expression for the total change in the value of the stock over the five-day period. Then find the total change. _____



Subtracting Integers Write each subtraction expression as an addition expression. Then find the value of the expression.

8. $4 - 10$ _____

9. $-11 - 5$ _____

10. Student Council spent \$178 on decorations and \$110 on snacks for a dance. Write an addition expression for the amount remaining in the budget if Student Council initially had \$593. Then find the amount remaining.

How Did You Do?

Which problems did you answer correctly in the Quick Check? Shade those exercise numbers below.

1 2 3 4 5 6 7 8 9 10

Lesson 7-4

Subtracting Linear Expressions

Getting Started

Scan Lesson 7-4 in your textbook. List two headings you would use to an outline of the lesson.

- _____
- _____

Vocabulary

Define *linear expression* in your own words..



Real-World Link

Lacrosse Some of the statistics that are tracked in middle school lacrosse include goals and assists. The table shows the number of goals and assists that Jessica and Isabella scored in the first two games of the season.

Player	Number of Goals		Number of Assists	
	Game 1	Game 2	Game 1	Game 2
Jessica	g	3	2	1
Isabella	0	2	5	a

- Write an expression to represent the total number of goals that each player scored in the first two games.

Jessica: _____ Isabella: _____

- Write an expression to show how many more goals Jessica scored than Isabella in the first two games. Then simplify the expression.

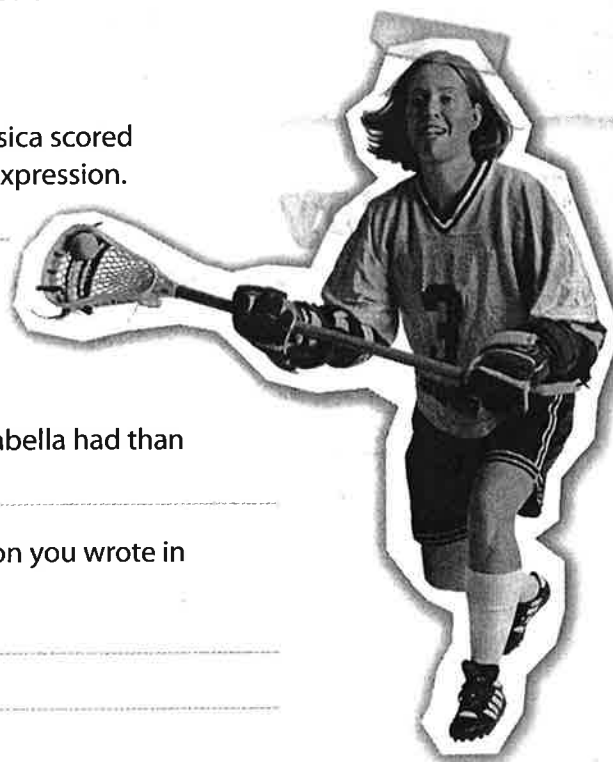
- Write an expression to represent the total number of assists that each player had in the first two games.

Jessica: _____ Isabella: _____

- Write an expression to show how many more assists Isabella had than

Jessica in the first two games. _____

- Show the steps you would use to simplify the expression you wrote in Exercise 4. Justify each step.



Questions

Notes

Subtract Linear Expressions

For Exercises 1–3, circle the expression that is equivalent to the given expression.

1. $(5x + 2) - (3x + 1)$

$5x + 2 - 3x + 1$

$5x + 2 - 3x - 1$

2. $(8c - 3) - (7c - 9)$

$8c - 3 - 7c + 9$

$8c - 3 - 7c - 9$

3. $(4n + 5) - (2n + 6 - 5n)$

$4n + 5 - 2n - 6 + 5n$

$4n + 5 - 2n - 6 - 5n$

4. What is one thing you want to remember about subtracting linear expressions?

Solve Problems with Linear Expressions

5. The expression $2m - 1$ represents the distance driven by the Nguyen family on Day 1 of a 3-day family vacation. The expression $5m + 6$ represents the total miles driven on the vacation. Write and simplify a subtraction expression that represents the miles driven on Days 2 and 3.

Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

Are you ready to move on? Shade the section that applies.



For more help, go online to access a Personal Tutor.



FOLDABLES Time to update your Foldable!

Chapter 8

Equations and Inequalities

Chapter Preview



Vocabulary

empty set

identity

solution

equivalent equations

null set

two-step equation

inverse operations

Vocabulary Activity

Complete the graphic organizer below.

Equations and Inequalities	
Equation Describe It 	Inequality Describe It
List Some Examples 	List Some Examples

Are You Ready?

Try the Quick Check below.
Or, take the Online Readiness Quiz.



Quick Review

Common Core Review 6.EE.3, 6.EE.7

Example 1

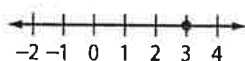
Solve $x + 5 = 8$. Graph your solution on a number line.

$$x + 5 = 8$$

$$\underline{-5 = -5} \quad \text{Subtract.}$$

$$x = 3 \quad \text{Simplify.}$$

To graph 3, draw a dot at 3 on the number line.



Example 2

Use the Distributive Property to write $5(11 + 2)$ as an equivalent expression. Then simplify the expression.

$$5(11 + 2) = 5 \cdot 11 + 5 \cdot 2 \quad \text{Multiply.}$$

$$= 55 + 10 \quad \text{Add.}$$

$$= 65$$

Quick Check

One-Step Equations Solve each equation. Graph your solution on a number line.

1. $5n = 10$ _____



2. $\frac{d}{3} = -2$ _____



Show your work.

Distributive Property Use the Distributive Property to write each expression as an equivalent expression. Then simplify the expression.

3. $5(6 - 2)$ _____

4. $4(n + 8)$ _____

How Did You Do?

Which problems did you answer correctly in the Quick Check?
Shade those exercise numbers below.



Lesson 8-1

Solving Equations with Rational Coefficients

Getting Started

Scan Lesson 8-1 in your textbook. List two real-world scenarios in which you would solve equations with rational coefficients.

•

•

Vocabulary

Circle the vocabulary word defined below.

A letter or symbol used to represent an unknown value.

constant variable

Vocabulary Start-Up

An **equation** such as $12 - 3 = 9$ or $3 + 2x = 21$, is a mathematical sentence that shows two expressions are equal. If an equation contains a variable, the value for the variable that makes the equation true is called a **solution**. For example, 9 is the solution of $3 + 2x = 21$ because $3 + 2(9) = 21$.

For each equation, underline the variable. Then circle the correct solution.

Equation	Possible Solutions		
$x + 0.5 = 17$	$x = 12$	$x = 16.5$	$x = 17.5$
$t - 10 = -20$	$t = -10$	$t = 10$	$t = -30$
$3n = 9.6$	$n = 3.2$	$n = 3.6$	$n = 28.2$
$\frac{d}{4} = 8$	$d = 2$	$d = \frac{1}{2}$	$d = 32$



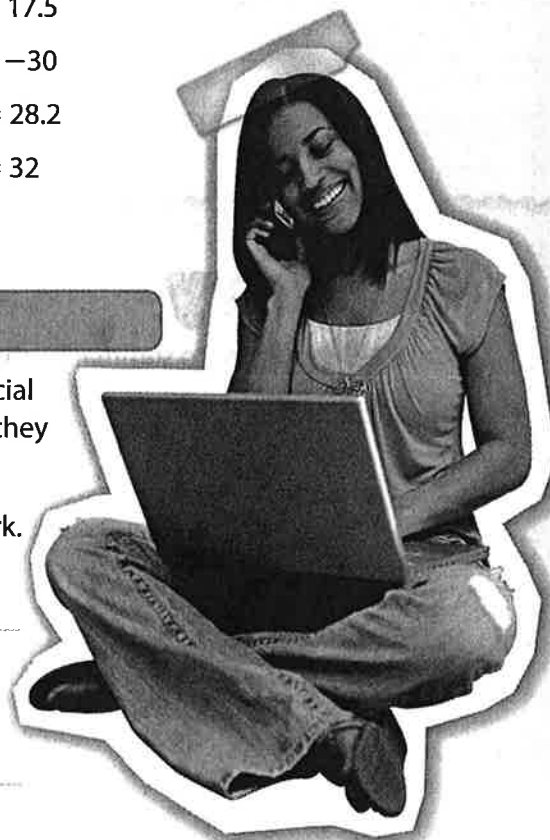
Real-World Link

Social Networks More pre-teens and teens are participating in social networking than ever before. Three fourths of teens surveyed said they belong to a social network, compared to 40% of adults surveyed.

- Suppose 750 teens surveyed said they belong to a social network. Let t represent the total number of teens surveyed and write an equation that models this situation. _____

- Suppose 500 adults surveyed said they belong to a social network. Let a represent the total number of adults surveyed.

Write an equation that models this situation. _____



Questions

Notes

Solve Equations by Dividing

1. Cross out the equation that does not belong.

$$0.25t = 5$$

$$-2 = -0.1x$$

$$2.5 = -0.125s$$

2. What is true about the remaining equations?

Solve Equations by Multiplying

Complete the graphic organizer to solve $\frac{3}{4}c = 18$.

Step 1 Write the equation.

Step 2 Use the Multiplication Property of Equality.

Step 3 Write 18 as $\frac{18}{1}$. Divide by common factors.

Step 4 Simplify.

Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

☐ I understand how to solve equations with rational coefficients.

▶▶ Great! You're ready to move on!

☐ I still have questions about solving equations with rational coefficients.

📖 No Problem! Go online to access a Personal Tutor.



Lesson 8-4

More Two-Step Equations

Getting Started

Scan Lesson 8-4 in your textbook. List two headings you would use to make an outline of the lesson.

- _____
- _____

Vocabulary

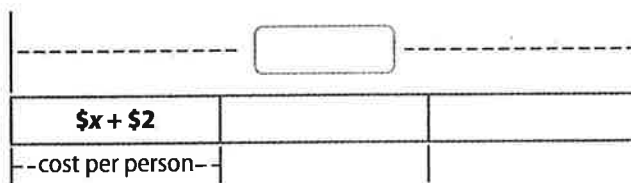
Write the definition of two-step equation in your own words.



Real-World Link

Bowling Bowling alleys typically charge for the number of games played and the rental of bowling shoes. Kofi and two friends went bowling. Their total cost for games played and shoe rental was \$48. Each person spent \$2 to rent bowling shoes and paid the same amount of money for the games played.

1. Complete the bar diagram that represents the situation.



2. Use the bar diagram to complete the equation. [] $(x + 2) =$ []

3. From the diagram, you can see that Kofi spent one third of the total cost. So, Kofi spent $\$x + \$2 = \frac{\$48}{3}$ or [].

4. Suppose Kofi and three friends went bowling. If each person rented bowling shoes for \$2 and their total cost was \$56, write an equation that could represent this situation.
- _____

5. How could you use the equation you wrote in Exercise 4 to find the amount of money Kofi spent?
- _____



Notes

Solve Two-Step Equations

Complete the graphic organizer to solve $5(x - 2) = 22$.

Step 1 Write the equation.	
Step 2 Use the Division Property of Equality.	
Step 3 Simplify.	
Step 4 Use the Subtraction Property of Equality.	
Step 5 Simplify.	

Use the Distributive Property

- Mrs. Sanchez is making 5 costumes for the school play. Of the \$60 she spent on material and supplies, Mrs. Sanchez spent \$3 per costume for buttons and zippers. Circle the equation that represents this situation.

$$5x + 3 = 60$$

$$5(x + 3) = 60$$

- In Exercise 1, how did you decide which equation to circle?

Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

Are you ready to move on? Shade the section that applies.



For more help, go online to access a Personal Tutor.



FOLDABLES Time to update your Foldable!

Lesson 8-6

Inequalities

Getting Started

Write the math and the real-world definitions of inequality.

- math definition: _____
- real-world definition: _____

Quick Review

What is the meaning of each symbol?

$>$ _____

$<$ _____



Real-World Link

Water Parks Wisconsin Dells, Wisconsin, is known as the Water Park Capital of the World. The town has 20 water parks with more than 200 waterslides and 16 million gallons of water. The table shows the admission rates for one of the parks.

Type of Ticket	Price (\$)
Child 47 inches tall and under	25
Adult Over 47 inches tall	35

1. What is the height requirement to purchase an adult ticket?

2. What is the maximum height of a person that can purchase a child ticket?

3. The Blackfox family is going to the park. Circle the type of ticket Mr. Blackfox needs to buy for each family member.

Mr. Blackfox	72 inches tall	child	adult
Mrs. Blackfox	64 inches tall	child	adult
Lupe	42 inches tall	child	adult
Juan	47 inches tall	child	adult
Rosa	58 inches tall	child	adult

4. What type of ticket did he buy for Juan? Explain.

5. How tall are you? Would you need to buy an adult ticket? Explain.



Questions

Notes

Write Inequalities

Write $<$, $>$, \leq , or \geq to represent each phrase. The first one has been done for you.

Inequalities	
Phrase	Symbol
is greater than	$>$
is no more than	
is at least	
is fewer than	
exceeds	
is no less than	
is at most	

Graph Inequalities

For each inequality, write *closed* or *open* to indicate which type of circle you would use to graph the inequality on a number line. Then indicate whether the arrow would point *right* or *left*.

- $x \geq -5$ _____
- $x < 12$ _____
- $-8 > x$ _____
- $x \leq 4$ _____
- $x < -6$ _____
- $3 \leq x$ _____

Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

How well do you understand writing and graphing inequalities? Circle the image that applies.



Clear



Somewhat Clear



Not So Clear

For more help, go online to access a Personal Tutor.



Lesson 8-7

Solving Inequalities

Getting Started

Scan Lesson 8-7 in your textbook. List two headings you would use to make an outline of the lesson.

- _____
- _____

Vocabulary

Write the definition of *inequality* in your own words.



Real-World Link

Pets Did you know that 39% of U.S. households own at least one dog? The amount of food that you feed your dog should be based on the dog's weight. Jackson has a Labrador retriever that weighs 65 pounds and should eat no more than $2\frac{1}{2}$ cups of dog food each day.

- Which inequality symbol would you use to represent the phrase *no more than*?
- Suppose Jackson feeds his dog twice each day. If a represents the amount of feed he gives the dog at each feeding, what is the meaning of the inequality below?

$$2a \leq 2\frac{1}{2}$$

- Rewrite the inequality by replacing the \leq sign with $=$.

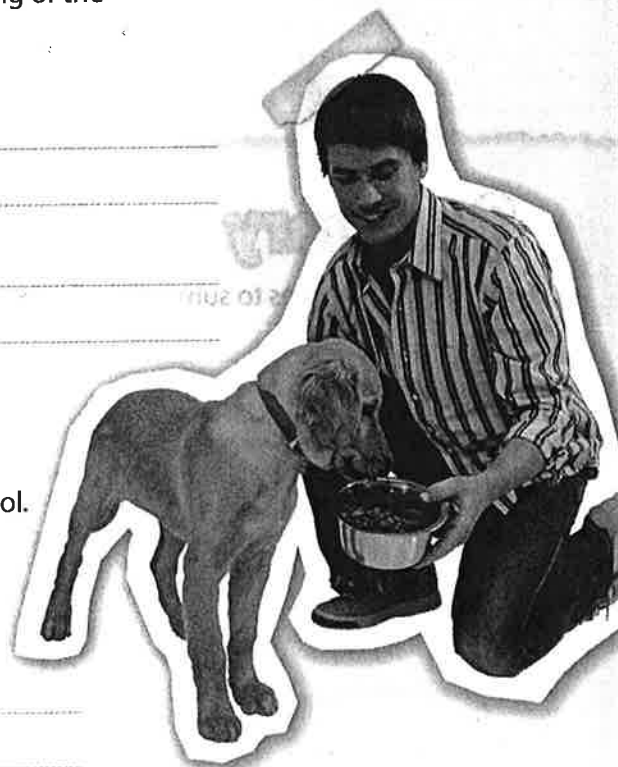
How would you solve this equation?

So, $a =$

- Replace the equals sign with the less than or equal to symbol.

$$a \leq$$

What is the meaning of this new inequality?



Notes

Addition and Subtraction Properties

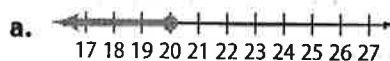
Complete the graphic organizer by writing the steps to solve the inequality.

Write the inequality.	$-12 \leq y - 9$
	$-12 + 9 \leq y - 9 + 9$
	$-3 \leq y \text{ or } y \geq -3$
	$-12 \leq y - 9$ $-12 \geq 4 - 9$ $-12 \leq -5 \checkmark$

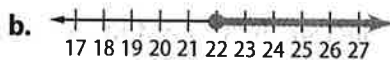
Multiplication and Division Properties

Solve each inequality. Then draw a line to match the solution to its corresponding number line.

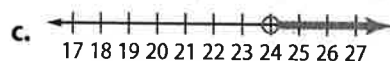
1. $\frac{z}{6} > 4$



2. $-3n \geq -60$



3. $-2g \leq -44$



Summary

Write 2–3 sentences to summarize the lesson.

Rate Yourself!

Are you ready to move on? Shade the section that applies.



For more help, go online to access a Personal Tutor.



FOLDABLES Time to update your Foldable!

Lesson 8-8

Solving Multi-Step Equations and Inequalities

Getting Started

Scan Lesson 8-8 in your textbook. Write the definitions of identity and null set.

• identity: _____

• null set: _____

Quick Review

Describe the steps for solving the equation $3x + 4 = 16$.

Step 1 _____

Step 2 _____

Step 3 _____



Real-World Link

Field Trip Mr. Murphy's class of 20 students is going on a field trip to the science center. Admission to the museum is \$8 per student and there is an additional cost of m dollars per student to watch the 3-D movie. The total cost for all of the students is \$270.

1. Fill in the information that you know.

cost of admission per student

cost of movie per student

number of students

total cost for all students

2. What expression can be used to represent the total cost per student?

3. What expression can be used to represent the total cost of admission and a movie for all students?

4. Use the Distributive Property to rewrite the expression from Exercise 3 as an equivalent expression.

5. Using the expression for Exercise 4, write and solve an equation to find the cost of a ticket for the 3-D movie.



Questions

Notes

Solve Multi-Step Equations

Write an equation that has a solution that is an identity. Then write an equation that has a solution that is the empty set.

identity: _____

null or empty set: _____

Solve Multi-Step Inequalities

Complete the steps in the table to solve $-4(x + 12) > -(3x + 16)$.

Solve Multi-Step Inequalities	
Step 1 Write the equation.	
Step 2 Use the Distributive Property on both sides of the equation.	
Step 3 Add $3x$ to both sides of the equation.	
Step 4 Add 48 to both sides of the equation.	
Step 5 Multiply both sides of the equation by -1 . Reverse the inequality symbol.	

Summary


Write 2–3 sentences to summarize the lesson.

Rate Yourself!

☐ I understand how to solve multi-step equations and inequalities.

▶▶ Great! You're ready to move on!

☐ I still have questions about solving multi-step equations and inequalities.

 No Problem! Go online to access a Personal Tutor.



FOLDABLES Time to update your Foldable!

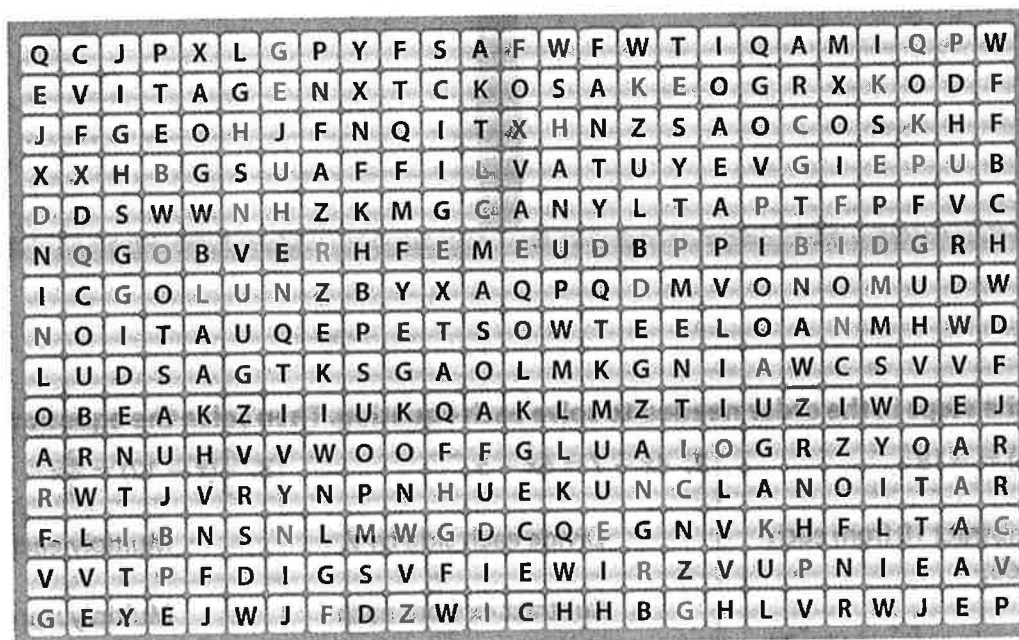
Chapter Review

Vocabulary Check



Fill in the blank with the correct vocabulary term. Then circle the word that completes the sentence in the word search.

- The _____ or _____ is shown by the symbol \emptyset .
- A(n) _____ is a mathematical sentence that contains a less than or greater than symbol.
- The inequality symbol must be reversed when you multiply or divide both sides by a _____ number.
- The inequality symbol remains the same when you multiply or divide both sides by a _____ number.
- In the equation $\frac{3}{4}x + 4 = 12$, $\frac{3}{4}$ is a _____ coefficient.
- A value for the variable that makes an equation true is called a(n) _____.
- An equation that contains two steps is called a(n) _____.
- A(n) _____ is a mathematical sentence that contains an equals sign.
- A(n) _____ is an equation that is true for every value of the variable.



Key Concept Check

Use Your FOLDABLES

Use your Foldable to help review the chapter.

Tape here ↓	Tape here ↓		
Tab 1 Solving Equations and Inequalities	<div>Multi-Step Example(s)</div> <div style="height: 400px;"></div>	<div>Multi-Step Example(s)</div> <div style="height: 400px;"></div>	Tab 2

Got it?

Number the steps in the order needed to solve each equation. Then solve the equation.

1. $3(x + 6) = -18$

_____ Subtract 18 from each side.

_____ Divide each side by 3.

_____ Multiply x and 6 by 3.

$x =$ _____

2. $4x - 7 = 6x - 5$

_____ Divide each side by 2.

_____ Subtract $4x$ from each side.

_____ Add 5 to each side.

$x =$ _____

3. $\frac{1}{3}(x - 12) = \frac{2}{3}x - 6$

_____ Multiply each side by 3.

_____ Multiply x and 12 by $\frac{1}{3}$.

_____ Add 6 to each side.

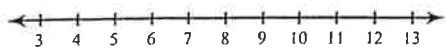
_____ Subtract $\frac{1}{3}x$ from each side.

$x =$ _____

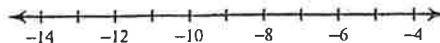
Two-Step Inequalities

Solve each inequality and graph its solution.

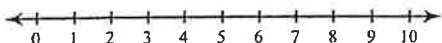
1) $2x + 4 \geq 24$



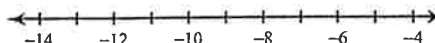
2) $\frac{m}{3} - 3 \leq -6$



3) $-3(p + 1) \leq -18$



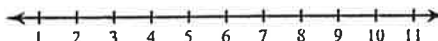
4) $-4(-4 + x) > 56$



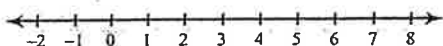
5) $-b - 2 > 8$



6) $-4(3 + n) > -32$



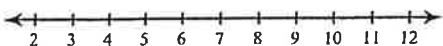
7) $4 + \frac{n}{3} < 6$



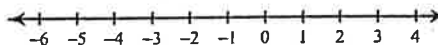
8) $-3(r - 4) \geq 0$



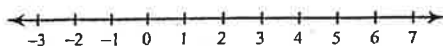
9) $-7x + 7 \leq -56$



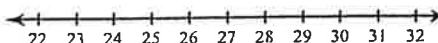
10) $-3(p - 7) \geq 21$



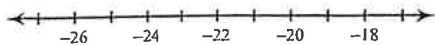
11) $-11x - 4 > -15$



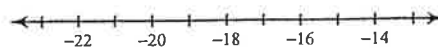
12) $\frac{-9 + a}{15} > 1$



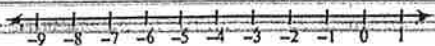
$$13) -1 \leq \frac{v-2}{21}$$



$$14) -132 > 12(n+9)$$



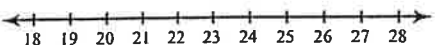
$$15) \frac{-11+n}{15} < -1$$



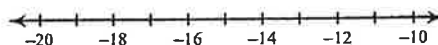
$$16) -90 \geq -5(k-3)$$



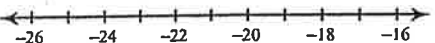
$$17) 4 < 1 + \frac{n}{7}$$



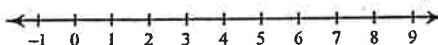
$$18) -1 > \frac{12+x}{4}$$



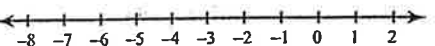
$$19) 7n - 1 > -169$$



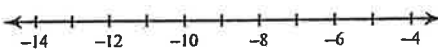
$$20) -4b - 5 > -25$$



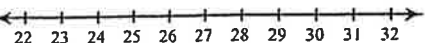
$$21) 84 \geq -7(v-9)$$



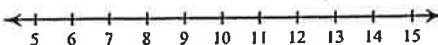
$$22) \frac{-8+r}{2} > -8$$



$$23) \frac{x}{-6} - 8 \leq -12$$



$$24) \frac{m-3}{2} \leq 5$$



Part I

Answer all 10 questions in this part. No partial credit will be allowed. Record your answers on your separate answer sheet.

1. Which ordered pair is *not* in the solution set of $y > -\frac{1}{2}x + 5$ and $y \leq 3x - 2$?

- $$\begin{array}{ll} 1) & (5,3) \\ 2) & (4,3) \end{array} \quad \begin{array}{ll} 3) & (3,4) \\ 4) & (4,4) \end{array}$$

2. The sum of $4x^3 + 6x^2 + 2x - 3$ and $3x^3 + 3x^2 - 5x - 5$ is

- 1) $7x^3 + 3x^2 - 3x - 8$ 3) $7x^3 + 3x^2 + 7x + 2$

- 2) $7x^3 + 9x^2 - 3x - 8$ 4) $7x^6 + 9x^4 - 3x^2 - 8$

3. When solving the equation $12x^2 - 7x = 6 - 2(x^2 - 1)$

Evan wrote $12x^2 - 7x = 6 - 2x^2 + 2$ as his first step.

Which property justifies this step?

- 1) Subtraction property of equality
- 2) Commutative property of addition
- 3) Multiplication property of equality
- 4) Distributive property of Multiplication over subtraction

4. Which expression results in a rational number?

- 1) $\sqrt{121} - \sqrt{21}$
- 2) $\sqrt{25} \cdot \sqrt{50}$
- 3) $\sqrt{36} \div \sqrt{225}$
- 4) $3\sqrt{5} + 2\sqrt{5}$

5. If $3ax + b = c$, then x equals

1) $c - b + 3a$

3) $c + b - 3a$

2) $\frac{c - b}{3a}$

4) $\frac{b - c}{3a}$

6. What is the value of x in the equation

$$2(x - 4) = 4(2x + 1)?$$

1) $\frac{1}{2}$

3) $-\frac{1}{2}$

2) 2

4) -2

7. The following temperatures were recorded (in F°) each day for two weeks.

82, 72, 83, 75, 80, 78, 82, 73, 60, 79, 80, 78, 83, 81

What is the mean for this set of data, if the outlier is removed?

1) 75

3) 78.9

2) 77.6

4) 79.5

8. A cell phone company charges \$60.00 a month for up to one gigabyte of data. The cost of additional data is \$0.05 per megabyte. If d represents the total charges at the end of the month, which linear equation can be used to determine the user's monthly bill?

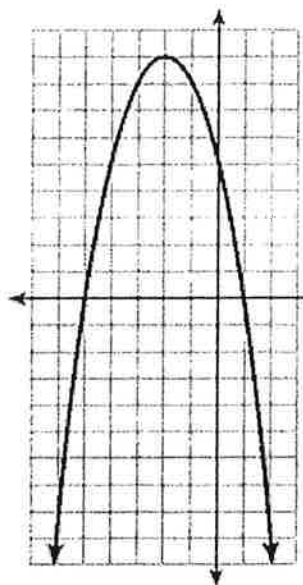
1) $c = 60 - 0.05d$

3) $c = 60d - 0.05$

2) $c = 60.05d$

4) $c = 60 + 0.05d$

9. A relation is graphed on the set of axes below.



Based on this graph, the relation is

- (1) a function because it passes the horizontal line test
- (2) a function because it passes the vertical line test
- (3) not a function because it fails the horizontal line test
- (4) not a function because it fails the vertical line test

10. The function $g(x)$ is defined as $g(x) = -2x^2 + 3x$. The value of $g(-3)$ is

- | | |
|--------|-------|
| 1) -27 | 3) 27 |
| 2) -9 | 4) 45 |

11. A mapping is not a function when

- 1) Every mapping is a function
- 2) One of the inputs is mapped to more than one output
- 3) You cannot have negative inputs
- 4) If graphed, the relation would be a parabola

12. What is the slope intercept form of a linear equation?

- 1) $y = ax + bx + c$
- 2) $y = ax + b$
- 3) $y = mx + bx + c$
- 4) $y = mx + b$

13. Example of multiplicative identity property

- 1) $4 \times 2 = 8$
- 2) $4 \times 4 = 16$
- 3) $4 \times 5 = 20$
- 4) $4 \times 1 = 4$

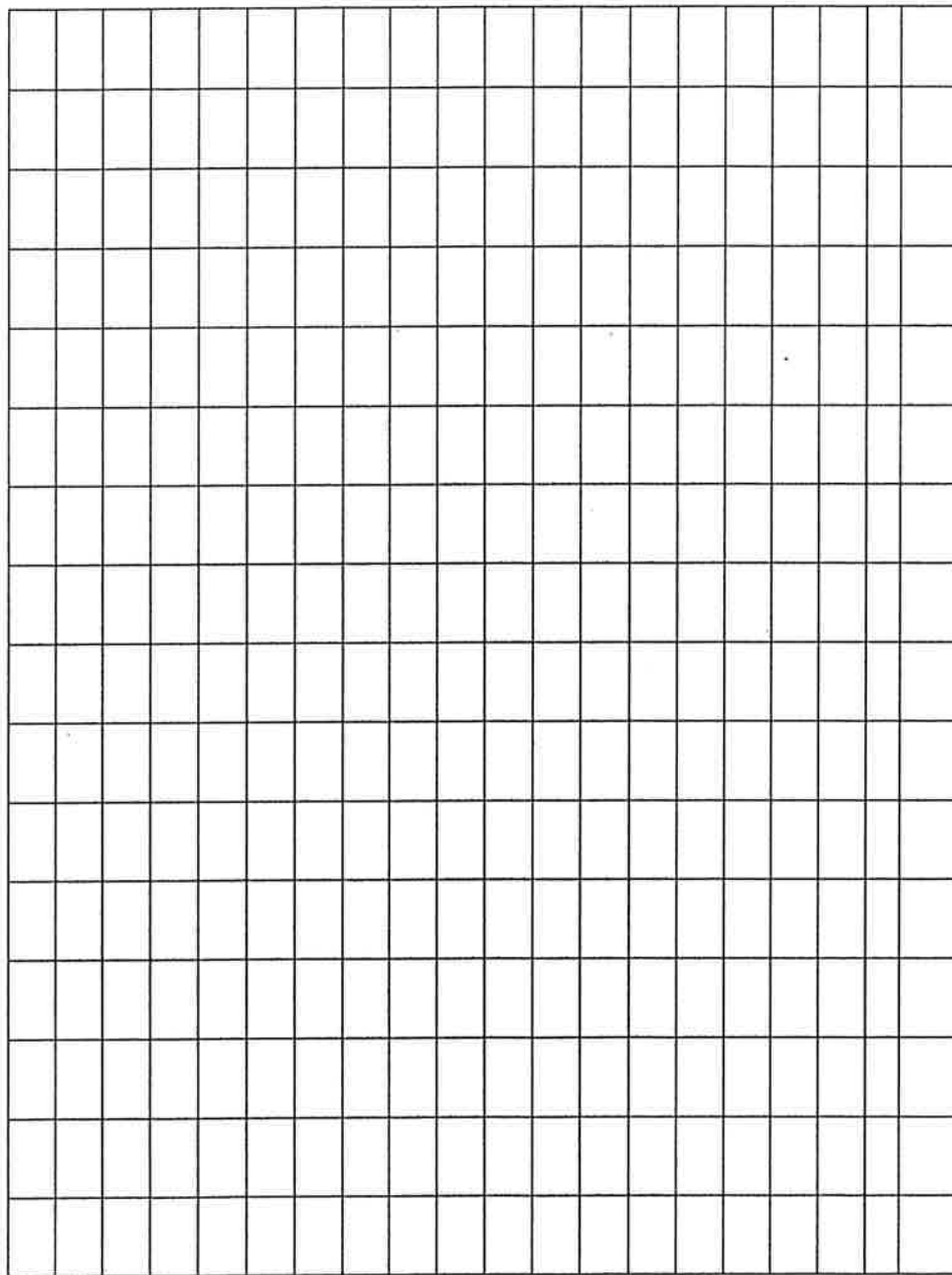
14. Additive Identity Property

- 1) $a + 0 = 0 + a = a$
- 2) If $a = b$, then $a + c = b + c$
- 3) $a + (-a) = 0$
- 4) If $a = b$, then $b = a$

Part II

Answer the following question. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, charts, etc. A correct numerical answer with no work shown will receive only partial credit.

15. On the set of axes below, draw the graph of the equation $y = -\frac{3}{4}x + 3$



Is the point $(3, 2)$ a solution to the equation? Explain your answer based on the graph drawn.

A

Correct _____

Multiply.

1	$1 \times 7 =$		23	$10 \times 7 =$	
2	$7 \times 1 =$		24	$9 \times 7 =$	
3	$2 \times 7 =$		25	$4 \times 7 =$	
4	$7 \times 2 =$		26	$8 \times 7 =$	
5	$3 \times 7 =$		27	$7 \times 3 =$	
6	$7 \times 3 =$		28	$7 \times 7 =$	
7	$4 \times 7 =$		29	$6 \times 7 =$	
8	$7 \times 4 =$		30	$7 \times 10 =$	
9	$5 \times 7 =$		31	$7 \times 5 =$	
10	$7 \times 5 =$		32	$7 \times 6 =$	
11	$6 \times 7 =$		33	$7 \times 1 =$	
12	$7 \times 6 =$		34	$7 \times 9 =$	
13	$7 \times 7 =$		35	$7 \times 4 =$	
14	$8 \times 7 =$		36	$7 \times 3 =$	
15	$7 \times 8 =$		37	$7 \times 2 =$	
16	$9 \times 7 =$		38	$7 \times 7 =$	
17	$7 \times 9 =$		39	$7 \times 8 =$	
18	$10 \times 7 =$		40	$11 \times 7 =$	
19	$7 \times 10 =$		41	$7 \times 11 =$	
20	$7 \times 3 =$		42	$12 \times 7 =$	
21	$1 \times 7 =$		43	$7 \times 12 =$	
22	$2 \times 7 =$		44	$13 \times 7 =$	

B

Improvement _____

Correct _____

Multiply.

1	$7 \times 1 =$		23	$9 \times 7 =$	
2	$1 \times 7 =$		24	$3 \times 7 =$	
3	$7 \times 2 =$		25	$8 \times 7 =$	
4	$2 \times 7 =$		26	$4 \times 7 =$	
5	$7 \times 3 =$		27	$7 \times 7 =$	
6	$3 \times 7 =$		28	$5 \times 7 =$	
7	$7 \times 4 =$		29	$6 \times 7 =$	
8	$4 \times 7 =$		30	$7 \times 5 =$	
9	$7 \times 5 =$		31	$7 \times 10 =$	
10	$5 \times 7 =$		32	$7 \times 1 =$	
11	$7 \times 6 =$		33	$7 \times 6 =$	
12	$6 \times 7 =$		34	$7 \times 4 =$	
13	$7 \times 7 =$		35	$7 \times 9 =$	
14	$7 \times 8 =$		36	$7 \times 2 =$	
15	$8 \times 7 =$		37	$7 \times 7 =$	
16	$7 \times 9 =$		38	$7 \times 3 =$	
17	$9 \times 7 =$		39	$7 \times 8 =$	
18	$7 \times 10 =$		40	$11 \times 7 =$	
19	$10 \times 7 =$		41	$7 \times 11 =$	
20	$1 \times 7 =$		42	$12 \times 7 =$	
21	$10 \times 7 =$		43	$7 \times 12 =$	
22	$2 \times 7 =$		44	$13 \times 7 =$	

A

Name: _____

Date: _____

Math Sprints 6's

correct _____

1	$6 \times 1 =$	23	$6 \times 3 =$
2	$1 \times 6 =$	24	$8 \times 6 =$
3	$6 \times 2 =$	25	$1 \times 6 =$
4	$2 \times 6 =$	26	$7 \times 6 =$
5	$6 \times 3 =$	27	$5 \times 6 =$
6	$3 \times 6 =$	28	$6 \times 2 =$
7	$6 \times 4 =$	29	$6 \times 4 =$
8	$4 \times 6 =$	30	$6 \times 9 =$
9	$6 \times 5 =$	31	$6 \times 11 =$
10	$5 \times 6 =$	32	$10 \times 6 =$
11	$6 \times 6 =$	33	$6 \times 6 =$
12	$6 \times 7 =$	34	$6 \times 7 =$
13	$7 \times 6 =$	35	$5 \times 6 =$
14	$6 \times 8 =$	36	$4 \times 6 =$
15	$8 \times 6 =$	37	$3 \times 6 =$
16	$6 \times 9 =$	38	$8 \times 6 =$
17	$9 \times 6 =$	39	$2 \times 6 =$
18	$6 \times 10 =$	40	$6 \times 11 =$
19	$10 \times 6 =$	41	$6 \times 1 =$
20	$11 \times 6 =$	42	$6 \times 7 =$
21	$6 \times 11 =$	43	$6 \times 8 =$
22	$12 \times 6 =$	44	$6 \times 4 =$

B

1	$6 \times 1 =$	23	$6 \times 3 =$
2	$1 \times 6 =$	24	$8 \times 6 =$
3	$6 \times 2 =$	25	$1 \times 6 =$
4	$2 \times 6 =$	26	$7 \times 6 =$
5	$6 \times 3 =$	27	$5 \times 6 =$
6	$3 \times 6 =$	28	$6 \times 2 =$
7	$6 \times 4 =$	29	$6 \times 4 =$
8	$4 \times 6 =$	30	$6 \times 9 =$
9	$6 \times 5 =$	31	$6 \times 11 =$
10	$5 \times 6 =$	32	$10 \times 6 =$
11	$6 \times 6 =$	33	$6 \times 6 =$
12	$6 \times 7 =$	34	$6 \times 7 =$
13	$7 \times 6 =$	35	$5 \times 6 =$
14	$6 \times 8 =$	36	$4 \times 6 =$
15	$8 \times 6 =$	37	$3 \times 6 =$
16	$6 \times 9 =$	38	$8 \times 6 =$
17	$9 \times 6 =$	39	$2 \times 6 =$
18	$6 \times 10 =$	40	$6 \times 11 =$
19	$10 \times 6 =$	41	$6 \times 1 =$
20	$11 \times 6 =$	42	$6 \times 7 =$
21	$6 \times 11 =$	43	$6 \times 8 =$
22	$12 \times 6 =$	44	$6 \times 4 =$

A

Correct _____

Solve.

1	$10^2 =$		23	$12^2 =$	
2	$9^2 =$		24	$4^2 =$	
3	$8^2 =$		25	$13^2 =$	
4	$7^2 =$		26	$3^2 =$	
5	$6^2 =$		27	$14^2 =$	
6	$5^2 =$		28	$2^2 =$	
7	$4^2 =$		29	$15^2 =$	
8	$3^2 =$		30	$1^2 =$	
9	$2^2 =$		31	$1^2 + 3^2 =$	
10	$1^2 =$		32	$4^2 + 2^2 =$	
11	$11^2 =$		33	$5^2 + 8^2 =$	
12	$12^2 =$		34	$6^2 + 7^2 =$	
13	$13^2 =$		35	$9^2 + 10^2 =$	
14	$14^2 =$		36	$3^2 + 12^2 =$	
15	$15^2 =$		37	$13^2 + 14^2 =$	
16	$8^2 =$		38	$15^2 + 2^2 =$	
17	$9^2 =$		39	$4^2 - 3^2 =$	
18	$7^2 =$		40	$1^2 \times 3^2 =$	
19	$10^2 =$		41	$3^2 \times 2^2 =$	
20	$6^2 =$		42	$10^2 \div 2^2 =$	
21	$11^2 =$		43	$10^2 \div 5^2 =$	
	$5^2 =$		44	$12^2 \times 10^2 =$	

B

Improvement _____

Correct _____

Solve.

1	$1^2 =$		23	$4^2 =$	
2	$2^2 =$		24	$12^2 =$	
3	$3^2 =$		25	$3^2 =$	
4	$4^2 =$		26	$13^2 =$	
5	$5^2 =$		27	$2^2 =$	
6	$6^2 =$		28	$14^2 =$	
7	$7^2 =$		29	$1^2 =$	
8	$8^2 =$		30	$15^2 =$	
9	$9^2 =$		31	$1^2 + 2^2 =$	
10	$10^2 =$		32	$4^2 + 9^2 =$	
11	$11^2 =$		33	$5^2 + 8^2 =$	
12	$12^2 =$		34	$6^2 + 7^2 =$	
13	$13^2 =$		35	$3^2 + 10^2 =$	
14	$14^2 =$		36	$11^2 + 12^2 =$	
15	$15^2 =$		37	$13^2 + 14^2 =$	
16	$8^2 =$		38	$15^2 + 2^2 =$	
17	$7^2 =$		39	$5^2 - 4^2 =$	
18	$9^2 =$		40	$2^2 \times 3^2 =$	
19	$6^2 =$		41	$5^2 \times 2^2 =$	
20	$10^2 =$		42	$10^2 \div 5^2 =$	
21	$5^2 =$		43	$10^2 \div 2^2 =$	
22	$11^2 =$		44	$13^2 \times 10^2 =$	

Name: _____
Mrs. Cameron

Due Date: _____
General Applied Math/Financial Applications

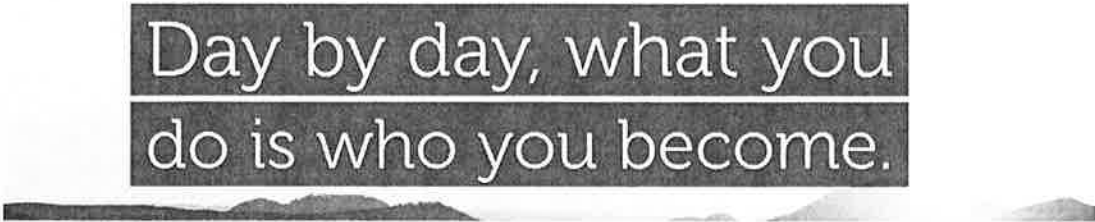
Summative Assignment Packet

In order to maintain the academic progress that you have made this year, it is important to continue to practice your math skills outside of the classroom. In this packet you will find your assignments to be completed to the best of your ability. Homework will be checked for effort and completeness. Please turn in your packet upon return to school.

Directions:

1. Follow the directions on each page.
2. Try Your Best.
3. Hand in your packet by March 27th, 2020.

QUOTE OF THE WEEK:



Day by day, what you
do is who you become.