

Lesson
47

Fixed and Variable Expenses

4.10(A) Distinguish between fixed and variable expenses.



Understand the TEKS

An **expense** is money that you spend to buy something. If you spend \$6 to go to the movies, that is an expense. An adult might pay \$300 each month to pay for a car. That is also an expense.

A **fixed expense** occurs regularly and costs the same amount each time. Car payments are a type of fixed expenses. In the example mentioned above, the car payment is paid every month and is \$300. The person making the car payment knows when the payment needs to be made and how much it will be. A person can easily plan for a fixed expense.

Rent or **mortgage** payments are also examples of fixed expenses. Rent is money that a person pays to the owner of a home. In return, the owner allows the renter to live in the home. For example, a renter might pay \$500 each month to live in an apartment.

A mortgage is a **loan** that pays for a home a person has bought. A loan is money that is borrowed from a lender such as a bank and is paid back with interest over time.

Interest is extra money that a borrower pays the lender for the use of the lender's money.

Like a renter, a person with a mortgage pays the same amount every month. For example, a person might have a mortgage payment of \$2,000 each month. The person makes payments every month until the mortgage is paid off. Each mortgage payment contains some money for the interest and some money for the original amount that was borrowed.

Whether they own or rent, people who live in any type of home usually pay for **utilities**. A utility is a basic service in a home, such as electricity, water, cable, and telephone. Some utilities are fixed expenses. For example, the cable bill may be exactly \$129.95 each month, and the water and sewer bill may be \$150 every three months, or quarter of the year. The cost of other utilities may change from month to month. For example, the electricity bill may be high in the summer, when the air conditioner is on most of the time, and not so high in winter.

Expenses that change are called **variable expenses**. Like electricity, food is a variable expense. So are expenses that are more optional, like entertainment. For example, you might go to the movies just once one month, but go to a theme park that costs five times as much another month. Some variable expenses, such as going to movies, are planned. Other variable expenses are for things people did not plan for, such as car repairs.

Words to Know

expense
fixed expense
rent
mortgage
loan
interest
utility
variable expense





Guided Instruction

Lena made a list of the expenses she had last week.

- \$2.50 per day for school lunch; Lena ate school lunch 5 days.
- \$6.00 for a book at the book fair
- \$0.50 per week club dues
- \$10.00 for a new soccer ball
- \$3.00 for class trip
- \$1.50 for an ice cream cone

Problem 1

What is the total of Lena's fixed expenses? What is the total of Lena's variable expenses? Which costs were higher?

Step 1 Identify each expense as fixed or variable.

Write F for Fixed and V for Variable.

- \$2.50 per day for school lunch _____
- \$6.00 for a book at the book fair _____
- \$0.50 per week club dues _____
- \$10.00 for a new soccer ball _____
- \$3.00 for class trip _____
- \$1.50 for an ice cream cone _____

Step 2 Add the fixed costs.

What is the total amount Lena paid for her school lunches last week?

$$\text{\$} \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \text{\$} \underline{\hspace{2cm}}$$

$$\text{\$} \underline{\hspace{2cm}} + \text{\$} \underline{\hspace{2cm}} = \text{\$} \underline{\hspace{2cm}}$$

Step 3 Add the variable costs.

$$\text{\$} \underline{\hspace{2cm}} + \text{\$} \underline{\hspace{2cm}} + \text{\$} \underline{\hspace{2cm}} + \text{\$} \underline{\hspace{2cm}} = \text{\$} \underline{\hspace{2cm}}$$

Step 4 Compare the costs.

Write the lesser number on the left, and the greater number on the right.

$$\text{\$} \underline{\hspace{2cm}} < \text{\$} \underline{\hspace{2cm}}$$

Which costs were higher? _____

Solution

The total of Lena's fixed expenses last week were \$ _____. The total of Lena's variable expenses last week were \$ _____. Her _____ costs were higher.

Problem 2

The table lists Brandon’s monthly expenses. Label each expense as *fixed* or *variable*. Brandon has a total of \$2,500 each month for expenses. What is the *most* he can spend on entertainment and other expenses?

Expense	Amount	Fixed or Variable?
Rent	\$800	
Car Payment	\$250	
Gasoline	\$120	
Food	\$450	
Utilities	\$200	
Clothing	\$80	
Savings	\$250	fixed
Charity	\$25	fixed
Entertainment and Other	?	

Step 1 Identify each expense as fixed or variable.

Circle the correct term in the following definitions:

Variable / Fixed expenses are the same every month

Variable / Fixed expenses change from month to month.

In the third column of the table, label the expenses as *fixed* or *variable*.

Step 2 Find Brandon’s total known expenses.

Add Brandon’s known expenses:

$$\begin{aligned}
 & \$ \underline{\hspace{2cm}} + \$ \underline{\hspace{2cm}} + \$ \underline{\hspace{2cm}} + \$ \underline{\hspace{2cm}} + \$ \underline{\hspace{2cm}} \\
 & + \$ \underline{\hspace{2cm}} + \$ \underline{\hspace{2cm}} + \$ \underline{\hspace{2cm}} = \$ \underline{\hspace{2cm}}
 \end{aligned}$$

Saving money is different from using it to buy something. Why does Brandon list savings as an expense?

Step 3 Subtract to find the amount Brandon can spend on entertainment and other expenses.

$$\$ \underline{\hspace{2cm}} - \$ \underline{\hspace{2cm}} = \$ \underline{\hspace{2cm}}$$

Solution

Brandon can spend up to \$ on entertainment and other expenses



Critical Thinking

Solve each problem.



1. Meg wants to spend less money. How can she reduce her variable expenses? How can she reduce her fixed expenses? Which expenses might be easier to reduce? Give an example.



2. The chart compares Ariel's fixed and variable expenses. Which expenses are greater? By how much? Explain how you know.

Fixed Expenses		Variable Expenses	
Mortgage	\$1,500	Clothing	\$120
Car	\$300	Food	\$500
Student Loan	\$120	Entertainment	\$150
Utilities	\$280	Travel	\$320



3. Hector includes \$50 each month as part of his expenses. He places the money in an account called his emergency fund. Does Hector treat this expense as fixed or variable? What is the advantage of paying money to an emergency fund? What is a disadvantage?



★ Practice

DIRECTIONS Read each question. Then circle the letter for the correct answer.

- 1** Which of these is an example of an expense?
- A** Tim earned \$10 for raking leaves.
 - B** Tim found a quarter on the floor.
 - C** Tim spent \$2 to buy a salad.
 - D** Tim deposited \$15 in his bank.

- 2** Jess bought a computer. She pays \$60 each month for 9 months. Which description is true?
- F** Jess has a fixed expense of \$60 per month.
 - G** Jess has a fixed expense of \$540.
 - H** Jess has a variable expense of \$60 per month.
 - J** Jess has a variable expense of \$540.

- 3** José is making a list of his expenses this month. Which should he list as a fixed expense?
- A** He will spend \$55 on new basketball shoes.
 - B** He will pay \$200 toward his student loan.
 - C** He will spend \$60 on a birthday dinner.
 - D** He will pay \$15 for a haircut.

- 4** The table shows some of Kira's expenses.

Monthly fee for ballet class	\$130
Ballet shoes	\$32
Tickets to ballet	\$55
Loan payment for stretching bar and wall mirror	\$48

What is the total amount of Kira's fixed expenses?

- F** \$32
 - G** \$87
 - H** \$178
 - J** \$265
- 5** One month, Grace spends \$1,200 on her mortgage, \$350 for food, \$280 for entertainment, \$50 on clothing, and \$240 for her car payment. What is the difference between her fixed and variable expenses?
- A** \$280
 - B** \$680
 - C** \$760
 - D** \$1,440



★ Assessment

DIRECTIONS Read each question. Then circle the letter for the correct answer.

1 Which of these is a variable expense?

- A** Kelly gets paid \$0.50 for each newspaper subscription she sells.
- B** Kelly saves any money she has left after she pays her bills.
- C** Kelly pays \$18 every week for a yoga class.
- D** Kelly buys old clocks whenever she finds them at a garage sale.

2 Gene made this list of expenses related to his car last month.

Expense	Amount
Car payment	\$230
Rent for parking garage	\$200
New tires	\$550
Car wash	\$15

What was the total variable expenses?

- F** \$15 **H** \$565
- G** \$430 **J** \$995

3 Which will have higher fixed expenses?

- A** Keenan spends \$25 for a concert.
- B** Keenan rents a trumpet for \$14 per month.
- C** Keenan sells his car for \$5,000 and starts taking the bus.
- D** Keenan buys a book about music for \$20.

4 Henry takes karate classes. Here is a list of some of his expenses last month.

Expense	Amount
90-minute class	\$50.00
45-minute class	\$25.00
Uniform	\$120.00
Bottle of water	\$2.50
Protein bar	\$3.00

How can Henry lower his variable expenses each month?

- F** Take a 90-minute class instead of two 45-minute classes.
- G** Stop buying bottles of water after some of his classes.
- H** Pay after each class instead of at the end of the month.
- J** Buy a protein bar after each class.

5 Jan pays \$5 each month to belong to a chess club. During some months, she spends between \$10 and \$12 to bring snacks. What is Jan's fixed expense for chess club for one year, in dollars?

Record your answer and fill in the bubbles on the following grid. Be sure to use the correct place value.

0	0	0	.	0	0
1	1	1		1	1
2	2	2		2	2
3	3	3		3	3
4	4	4		4	4
5	5	5		5	5
6	6	6		6	6
7	7	7		7	7
8	8	8		8	8
9	9	9		9	9