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2.2 Slicing Up the Pie

Focus: number sense, proportional reasoning, interpreting and displaying data

Warm Up

1. Solve without a calculator.

a) 40 is what percent of 80? _____

b) 20 is what percent of 80? _____

c) 10 is what percent of 80? _____

d) 50 is what percent of 80? _____

2. Complete the chart.

Fraction	Percent	Decimal
$\frac{9}{10}$		
	35%	
		0.08

3. Solve without a calculator.

a) 22% of $100 _____

b) 22% of $200 _____

c) 22% of $300 _____

4. What is 10% of

a) $212.60? _____

b) $348.71? _____

5. An employee being paid bi-weekly receives _____ or _____ pays per month.

6. Explain why there are 2 possible answers for #5.

_____

_____

Chapter 2

Managing Your Money

- Many people spend more time planning a party than managing their money.
- Whether you rent a basement apartment or own a large house, you can predict and manage most of your income and many of your expenses.

1. Brainstorm some household and living expenses you or your family might pay in a typical month.

_____

_____

_____

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- **Essential expenses** are not optional. These include such things as groceries.
- **Non-essential expenses** *are* optional. Going to the movies or out to dinner is a non-essential expense.

Go to pages 45–50 to write the definitions for **essential expense** and **non-essential expense** in your own words. Give an example of each.

2. Classify your list of expenses from #1 as either essential or non-essential.

Essential Expenses		Non-Essential Expenses	

- **Fixed expenses** are paid at the same time each week or each month. They are generally the same amount from payment to payment.
- **Variable expenses** are expenses that can change in their frequency or their amount.

Go to pages 45–50 to write the definitions for **fixed expenses** and **variable expenses** in your own words. Give an example of each.

3. Classify your list of expenses from #1 as either fixed or variable.

Fixed Expenses		Variable Expenses	

4. Dylan graduated from high school last year and works full-time at a job that pays $11.25/h. He lives with his parents. He drives his own car, which will be paid in full in about 1 year.

a) Assuming he works 40 hours per week, calculate Dylan's bi-weekly gross income.

b) Dylan's net earnings are about 85% of his gross earnings. What is his approximate bi-weekly net pay?

c) Dylan saves 10% of his net pay in a long-term savings account. How much does he put into the account each pay?

d) Estimate the amount that he will deposit into this account in 1 year.

e) Most months, Dylan's total take-home pay is $ _____.

f) Some months, his total take-home pay is $ _____.

g) Dylan pays his parents $300 per month to help with household expenses. In a 2-pay month, $300 is approximately _____% of Dylan's net earnings.

h) In a 3-pay month, $300 is approximately _____% of his net earnings.

i) List Dylan's possible car-related expenses. Circle the fixed expenses.

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• A **budget** is an organized income and spending plan.

Go to pages 45–50 to write the definition for **budget** in your own words.

5. a) Hafeeza lives with her young son. Her monthly expenses are listed in the chart below. Determine the percent of her total income for each expense. Round all calculations to the nearest percent.

Item	Amount ($)	Calculation	Percent of Income
Rent	635		
Food	250		
Daycare	300		
Savings	100		
Phone	50		
Car loan	115		
Car insurance	105		
Gas & other car expenses	180		
Gifts, charities	50		
Vacation fund	50		
Clothing	100		
Entertainment	75		
Total			

Chapter 2

b) Circle the non-essential items in Hafeeza's budget. Draw a rectangle around the fixed items.

c) What is the total amount budgeted for

essential items? $_____ variable items? $_____

d) Hafeeza is planning a trip with her son to Montreal to visit family. She estimates the vacation will cost $1000. If she starts the vacation fund today, when will she have enough saved?

6. Kaylee works part-time after school and on weekends. She earns $120 per week. She is learning how to manage her money by tracking her expenses.

a) Determine Kaylee's total expenses for each week in October. Then, calculate the total of each item for all 4 weeks.

Week of →	October 1–7	October 8–14	October 15–21	October 22–28	
Item ↓	**Amount ($)**				**Total**
Lunches	25.00	20.00	19.00	23.00	
Clothes		32.75		45.60	
Mom	20.00	20.00	20.00	20.00	
Going out	18.00	12.00	35.00	32.00	
Phone			44.30		
Miscellaneous	17.54	16.00	20.00	13.50	
Saving	39.46	19.25	−18.30	−3.50	
Total					

b) Explain the negative amounts in Kaylee's savings.

c) Explain "Miscellaneous."

d) Make 3 suggestions that Kaylee can use in November to improve her situation.

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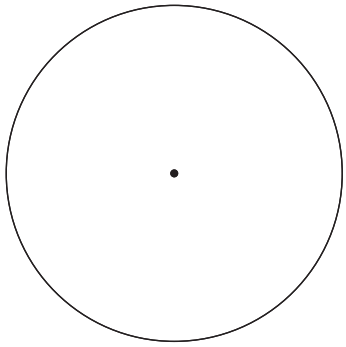
e) Determine the average amount spent each week for each category. Then, determine the percent of Kaylee's total income spent in each category. Round calculations to the nearest percent.

To find the weekly average, divide the 4-week total by 4.

Item	4-Week Total	Weekly Average	Percent of Total Income
Lunches			
Clothes			
Mom			
Going out			
Phone			
Miscellaneous			
Savings			

f) Some people prefer to see data in a graph. Create a circle graph showing the Percent of Total Income column. Estimate the size of each pie slice.



g) Use the Tech Tip on pages 52–53 to create a spreadsheet that displays Kaylee's expenses on a circle graph. Compare the accuracy of your sketch to the graph created by the computer.

☑ Check Your Understanding

1. You have organized Kaylee's budget information in several ways.

a) How can a circle graph help you interpret how you spend your money? _____

b) How can a spreadsheet help you interpret how you spend your money? _____