

## Chapter 1 Project: Checks and Balances

### Beginning the Chapter Project

When there is something you really want to buy, do you already have money saved for it? Or, do you put money aside each week until you can afford it? Maybe you just dream about it! A budget for your money can help you make dreams become reality.

As you work through the activities, you will use equations to help model your personal finances. You will develop spreadsheets to analyze your weekly budget, including regular savings. You will use percents to make graphs. Then you will display and present your budget plan using graphs and spreadsheets.

### List of Materials

- Newspapers or catalogs
- Calculator
- Protractor
- Graph paper

### Activities

#### Activity 1: Researching

Think of several items you would like to buy for less than \$150 apiece, such as a CD player, sports equipment, or clothing.

- Find the prices of these items using ads or by visiting several stores. What factors other than price should you consider? Explain.
- After completing your research, choose one item that you would like to buy. Explain your decision.
- If you can find the item on sale for 25% off, how much would you save? What would the item cost?

#### Activity 2: Modeling

To write a successful budget, you need to consider savings.

- Geraldo has already saved \$40 and wants to buy a CD player for \$129 about four months from now. To find how much he should save each week between now and then, he wrote  $40 + 16x = 129$ . Explain his equation.
- In Activity 1, you chose one item to purchase as the goal for your project. How much does it cost? When do you want to buy this item?
- Write and solve an equation to find how much you should save per week to achieve this goal.
- Suppose you earn \$15 per week. What percent of your weekly earnings will you need to save?
- What if you earn \$125 per week? What percent of your weekly earnings will you need to save? Is this more or less than the percent you would save if you only earned \$15 per week?

## Chapter 1 Project: Checks and Balances (continued)

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### Activity 3: Organizing

A spreadsheet can help you organize your information.

- Begin your budget by recording the amount of money you earn, the amount of money you save, and the amount of money you spend for two weeks.
- Analyze your expenses to plan how much you can spend each week while still meeting your savings goal.
- Design a spreadsheet to show all of the important categories in your budget plan. Include a column or row to show the total you will have saved by the end of each week.
- Will you reach your savings goal when you planned? Enter dollar amounts on your spreadsheet and verify that your budget works. What percent of your budget is allocated to savings?
- What percent of your budget is allocated to other activities?

### Activity 4: Graphing

Make a circle graph for the personal budget you wrote in Activity 3. In a table, show the dollar amounts, percents, and degree measures of the angles you used to draw the graph.

### Finishing the Project

The answers to the four activities should help you complete your project.

Assemble all the parts of your project, including the research on what you would like to buy, your expenses record, your spreadsheet, and your circle graph. Are the expenses you recorded for two weeks typical for you? Does your budget support your purchase goal? Summarize the strengths and weaknesses of your budget.

### Reflect and Revise

Present your budget and purchase goal to a small group of classmates. Compare your decisions to theirs. Present to the group two of your equations. Check each other's work (including the circle graphs) for reasonableness and accuracy. Use the group's comments and suggestions to revise and improve your project.

### Extending the Project

Maintain your budget for several weeks. Are your savings on track? If not, what expenses can you reduce? Can you increase your income?