

## Concepts Review

### True/False Questions

Each of the following statements is either true or false. Indicate your choice by circling T or F.

- T F 1. PowerPoint offers only one slide layout choice for slides with charts.
- T F 2. The sample worksheet in Excel is always blank when you create a new chart.
- T F 3. You cannot see the chart while you are working on the worksheet.
- T F 4. You can change the colors and patterns of columns in a chart to whatever you find appealing.
- T F 5. The units shown on the value axis are set by PowerPoint and cannot be changed.
- T F 6. Every chart must include a legend.
- T F 7. You must use a two-dimensional chart if you want to include a secondary axis.
- T F 8. Double-clicking a pie slice or column enables you to change its size.

### Short Answer Questions

Write the correct answer in the space provided.

1. How can you delete all the sample data in the worksheet at one time?

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2. How do you change the grouping of the data series on a chart from columns to rows?

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3. While working on a chart, how do you display the worksheet if it is not visible?

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4. What type of number formatting do you apply to values to display dollar signs?

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5. What group found on the Chart Tools Format tab can you use to select different parts of a chart?

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## UNIT 2 Presentation Illustration

6. Which button can you click to change the color of a selected pie slice?

- 
7. How can you change the font size for chart labels without opening a dialog box or using the Ribbon?

- 
8. On a 2-D column chart, how can you change one of the data series so that it is displayed as an area chart?
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### Critical Thinking


Answer these questions on a separate page. Support your answers with examples from your own experience, if possible.

1. How do you decide whether a chart is needed in your presentation? Do you think a presentation can have too many charts? Explain your answers.
2. Imagine that you are trying to explain to someone how you spend your waking hours during a typical day. Can you think of a chart that would break down your activities into different categories and show how much time you spend on each during the day? Describe the chart's appearance and the values that you would include.

## Skills Review



### Exercise 6-20

Create a new presentation that includes a simple column chart.

1. Open the file **FinSummary**.
2. Create a chart by following these steps:
  - a. Insert a new slide after slide 2 that uses the **Title and Content** layout.
  - b. Key **2010 Quarterly Earnings** for the title.
  - c. Click the Chart button  in the center of the content placeholder.
  - d. Choose a **3-D Clustered Column** chart, and click **OK**.
  - e. Replace the sample data with the data shown in Figure 6-21.
3. Click in any cell of row 5 that was used in the sample worksheet. Right-click, and then choose **Delete** from the shortcut menu. Choose **Entire Row**; then click **OK**. This step removes the unused row and the empty space from the chart.



**Figure 6-21**  
Worksheet

	A	B	C	D	E
1		Q1	Q2	Q3	Q4
2	New York	1888	2008	2116	1543
3	Los Angeles	1743	1799	1844	1539
4	Miami	1634	1439	1783	1469

4. Close Excel.
5. Edit the chart by following these steps:
  - a. Be sure the chart is selected; then, from the Chart Tools Design tab, in the Data Group, click Edit Data .
  - b. Click cell E3 (Q4 for Los Angeles) to select it.
  - c. Key **1849** to replace the value “1539.” Press **Enter**.
  - d. Still working on the Chart Tools Design tab, in the Data group, click the Switch Row/Column button .
  - e. Close Excel.
6. Create a handout header and footer: Include the date, your name as the header, the page number, and *[your initials]6-20* as the footer.
7. Move to slide 1, and save the presentation as *[your initials]6-20* in your Lesson 6 folder. View the presentation.
8. Close the presentation and submit your work.

## Exercise 6-21


**Edit and format an existing chart, change chart style, and format the legend.**

1. Open the file **Finance2**.
2. Edit the chart on slide 4 by following these steps:
  - a. Click the chart to activate it.
  - b. From the Chart Tools Design tab, in the Data group, click the Edit Data button  to open Excel.
  - c. On the worksheet, click cell B2 containing the value “-2%,” and key **2** to overwrite the negative value with a positive value. Press **Enter**.
  - d. Close Microsoft Excel.
3. Change the style of the chart by following these steps:
  - a. From the Chart Tools Design tab, in the Chart Styles Group, click the More button .
  - b. Choose **Style 25**.
4. Change the font for the Horizontal (Category) Axis label by following these steps:
  - a. Click the category axis label “2010” to select the category axis.
  - b. Right-click the axis, and make the following changes from the floating font group: Choose **Tahoma** font, **20 points** font size, and **Brown, Background 2** font color.

5. Format the Vertical (Value) Axis by following these steps:
  - a. Right-click a number on the value axis, and choose **Format Axis**.
  - b. For **Major unit** choose **Fixed**, and key **.05**. Click **Close**.
  - c. Right-click the axis, and make the following changes from the floating font group: Choose **Tahoma** font, **20 points** font size, and **Brown, Background 2** font color.
6. Format the legend by following these steps:
  - a. Right-click the legend, and choose **Format Legend** from the shortcut menu.
  - b. Under the Legend Position heading, choose **Top Right**, and click **Close**.
  - c. Use the floating font group to change the legend font to the **Tahoma** font and a font size of **16 points**.
7. Create a handout header and footer: Include the date, your name as the header, the page number, and **[your initials]6-21** as the footer.
8. Move to slide 1, and save the presentation as **[your initials]6-21** in your Lesson 6 folder.
9. Close the presentation and submit your work.


## Exercise 6-22

**Add a chart, format chart axes, add a secondary axis, and combine chart types.**

1. Open the file **Finance3**.
2. Add a slide after slide 3 with the **Title and Content** layout.
3. Key the title **2010 Special Events Revenue**.
4. Click the Chart button . In the Column category, choose the **Clustered Column** chart. Replace the sample data with the information in Figure 6-22.
5. Once the data are keyed, click the row 4 heading and drag down to select both rows 4 and 5. Right-click, and choose **Delete**.


**Figure 6-22**  
Worksheet



	A	B	C	D	E
1		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2	Special Events	71	141	118	149
3	Total Revenue	800	1076	1149	1207

6. From the Chart Tools Design tab, in the Data group, click the Switch Row/Column button .
7. Close Microsoft Excel.

**TIP**

You started with a 2-D chart in this exercise since a 2-D chart is required to add a secondary axis.

8. Add a secondary axis to the chart by following these steps:
  - a. Right-click one of the “Total Revenue” columns, and choose **Format Data Series** from the shortcut menu.
  - b. In the **Plot Series On** area, click **Secondary axis**. Click **Close**.
9. Change the chart type for the “Total Revenue” columns by following these steps:
  - a. Be sure the columns in this data series are still selected.
  - b. From the Chart Tools Design tab, in the Type group, click the Change Chart Type button .
  - c. In the **Line** category, choose the **Line** chart.
  - d. Click **OK**.
10. Change the formatting of the line for the data series by following these steps:
  - a. Select the line (being careful not to select the gridlines); then right-click, and choose **Format Data Series** from the shortcut menu.
  - b. Click **Line Style** at the left of the dialog box, and change the **Width** to **8 points**.
  - c. Click **Marker Options** at the left of the dialog box. Change the **Marker Type** to **Built-In**, choose the **Diamond**, and change the size to **15**.
  - d. Click **Marker Fill** at the left of the dialog box. Change to a **Solid Fill**, and then make the color **Tan, Text 2**. Click **Close**.
11. Format the secondary value axis by following these steps:
  - a. Right-click one of the numbers on the right side of the chart—on the Secondary Vertical (Value) Axis—and choose **Format Axis**.
  - b. Change the **Major unit** to **Fixed**, and key **500**.
  - c. Click **Number** at the left of the dialog box, and choose **Currency**. For **Decimal places** key **0**, and for **Symbol** choose **\$ English (United States)**. Click **Close**.
  - d. Right-click the secondary axis again, and use the floating font group to change the font to **Arial**.
12. Apply the following formatting to the Vertical (Value) Axis (on the left side of the chart) using the same process as that for the secondary axis.
  - a. Right-click the Vertical (Value) Axis, and choose **Format Axis**.
  - b. Change the **Maximum** to **250** and the **Major unit** to **Fixed** and **50**.
  - c. Click **Number** at the left of the dialog box, and choose **Currency**. For **Decimal places** key **0**, and for **Symbol** choose **\$ English (United States)**. Click **Close**.
  - d. Change the font to **Arial** using the floating font group.
13. Change the formatting of the Horizontal (Category) Axis. Right-click the category axis, and change the font to **Arial** using the floating font group.

14. Add chart titles and a legend by following these steps:
  - a. Click to activate the chart.
  - b. From the Chart Tools Layout tab, in the Labels group, click the Axis Titles button .
  - c. Choose **Primary Vertical Axis Title** and **Rotated Title**.
  - d. Select the text that appears in the text box; delete it, and key **Special Events (thousands)**.
  - e. Still working on the Chart Tools Layout tab, in the Labels group, click the Axis Titles button .
  - f. Choose **Secondary Vertical Axis Title** and **Rotated Title**.
  - g. Select the text that appears in the text box; delete it, and key **Total Revenue (thousands)**.
15. Right-click the legend, choose **Format Legend** from the shortcut menu, and change the legend position to **Top**. Click **Close**.
16. Check to be sure your elements and positioning match Figure 6-23.

**Figure 6-23**  
Completed chart



17. Create a handout header and footer: Include the date, your name as the header, the page number, and *[your initials]6-22* as the footer.
18. Move to slide 1, and save the presentation as *[your initials]6-22* in your Lesson 6 folder.
19. Close the presentation and submit your work.

## Exercise 6-23

Create and format a pie chart; add shapes, text boxes, and color.

1. Open the file **Apparel**.



### TIP

To use an em dash (the long straight line in the title), key two hyphens with no space around them. Then space once after “2010” and the two hyphens will change to an em dash, a more contemporary punctuation mark. This adjustment is controlled with PowerPoint’s AutoCorrect feature.

2. Insert a new slide after slide 2 that uses the **Title and Content** layout. Key the title **Apparel Mix—2010**.

3. Create a pie chart by following these steps:

a. Click the Chart button  in the center of the content placeholder.

b. Click the **Pie** category, and choose the **Pie in 3-D** chart type. Click **OK**.

c. On the worksheet, replace the sample information with the information shown in Figure 6-24.

**Figure 6-24**  
Worksheet


	A	B
1		Unit Sales
2	T-Shirts	4208
3	Bike Jerseys	1112
4	Visors	528
5	Knee Pads	663
6	Elbow Pads	967

4. Close Excel.

5. Format a pie slice by following these steps:

a. Click the dark-blue pie slice (Bike Jerseys) once to select the entire pie.

b. Click the dark-blue slice again to select the individual slice.

c. From the Chart Tools Format tab, in the Shape Styles group, click the Shape Fill button , and choose **Light Blue** from the Standard Colors category. This sets the color apart from the other blues.


d. Click these slices and change to the following standard colors: “T-Shirts,” light green; “Visors,” yellow; “Knee Pads,” red; and “Elbow Pads,” purple.

6. Right-click the pie’s legend, and choose **Delete** from the shortcut menu.

7. Delete the chart title.

8. Add data labels by following these steps:

a. Activate the chart.

b. From the Chart Tools Layout tab, in the Labels group, click the Data Labels button , and choose **More Data Label Options**.

c. In the Label Contains area, select the **Category Name** and the **Percentage** check boxes, and deselect the **Value** check box.

d. In the Label Position area, choose **Best Fit**.

e. Click **Close**.

9. Resize the chart to fill the available white space.


10. Explode a pie slice by following these steps:

a. Select the red “Knee Pads” slice by clicking it twice.

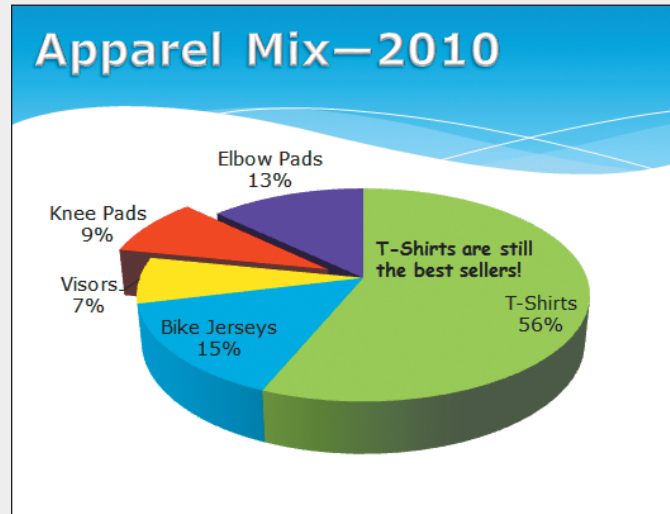
b. Drag the slice slightly away from the center of the pie.

c. Center the chart area horizontally on the slide and enlarge it to fill the available space.

d. Adjust label positions on or beside pie slices for easy reading.

11. Insert a text box and an arrow by following these steps:
  - a. From the Insert tab, in the Text group, click the Text Box button .
  - b. Click outside the chart area; draw the text box, and key **T-Shirts are still the best sellers!**
  - c. Move the text box on top of the large, light-green T-Shirts pie slice. Change the text box font to **Comic Sans MS** and **bold**. Resize the box so that the text fits on two lines, as shown in Figure 6-25.

**Figure 6-25**  
Exploded slice and  
text box



12. Create a handout header and footer: Include the date, your name as the header, the page number, and *[your initials]6-23* as the footer.
13. Move to slide 1, and save the presentation as *[your initials]6-23* in your Lesson 6 folder.
14. Close the presentation and submit your work.



## Lesson Applications

### Exercise 6-24

Create a presentation containing a column chart, and format the chart.

1. Start a new presentation using the **Median** design template and the **Aspect** theme color.
2. Using the text in Figure 6-26, create a three-slide presentation; use the **Title Slide** layout for slide 1 and the **Title and Content** layout for slides 2 and 3. The first line of each is the title for the slide.

Figure 6-26

**Slide 1** Three Years of Phenomenal Sales

Highlights

- New York revenue still increasing
- Miami and Los Angeles meeting goals
- Revenues reach 120% of budget

**Slide 2**

**Slide 3** Sales by Region—2008 to 2010

3. Right-align the title on slide 1.
4. On slide 3, create a 3-D Clustered Column chart by using the data shown in Figure 6-27. Delete row 5.

Figure 6-27  
Worksheet

	A	B	C	D
1		New York	Los Angeles	Miami
2	2008	5650	4183	3843
3	2009	8753	5892	6388
4	2010	11332	9852	8487

5. Close Excel.
6. Change the Vertical (Value) Axis options to have a **Maximum** of **12,000** and a **Major unit** of **3,000**. Change its **Number** formatting to **Currency, \$ English (U.S.)** with no decimals.
7. Change to **Chart Style 3**.
8. For the value and category axes and legend, change the font to 16 points, not bold.
9. Move the legend to the bottom.

10. Resize and reposition the chart to keep the spacing on both sides even.
11. Create a handout header and footer: Include the date, your name as the header, the page number, and *[your initials]6-24* as the footer.
12. Move to slide 1, and save the presentation as *[your initials]6-24* in your Lesson 6 folder.
13. Close the presentation and submit your work.

## Exercise 6-25

**Create and format a pie chart.**

**Figure 6-28**  
Worksheet

	A	B
1		2010 Expenses
2	Food	2190
3	Payroll	1813
4	Depreciation	577
5	Lease	1737

1. Open the file **Expense**.
2. Insert a new slide after slide 1 that uses the **Title and Content** layout. Key the title **Expense Breakdown**.
3. Create a 2-D pie chart on the new slide 2 by using the data from Figure 6-28.
4. Add **Percentage** data labels only to the chart. Change the font size to 32 points.
5. Increase the legend font to 20 points, bold.
6. Change the chart title size to 28 points, and move the title to the top left of the chart area.
7. Change the chart to a **Pie in 3-D**.
8. Explode the “Food” slice of the pie slightly.
9. If any of the percentage labels move off the slices, then right-click, choose **Format Data Label**, and choose the Label Position **Inside End** or click and drag the labels onto the slices of the pie.
10. Create a handout header and footer: Include the date, your name as the header, the page number, and *[your initials]6-25* as the footer.
11. Move to slide 1, and save the presentation as *[your initials]6-25* in your Lesson 6 folder.
12. Close the presentation and submit your work.

## Exercise 6-26

**Insert a chart; change the chart to a combination chart; format the chart text, data series, and legend; add a secondary axis; and add a shape.**

1. Open the file **Earnings**, and apply the **Oriel** design template using the **Concourse** theme color.
2. Insert a new slide between slides 2 and 3 that uses the **Title and Content** layout. Key the title **Gross Income**.

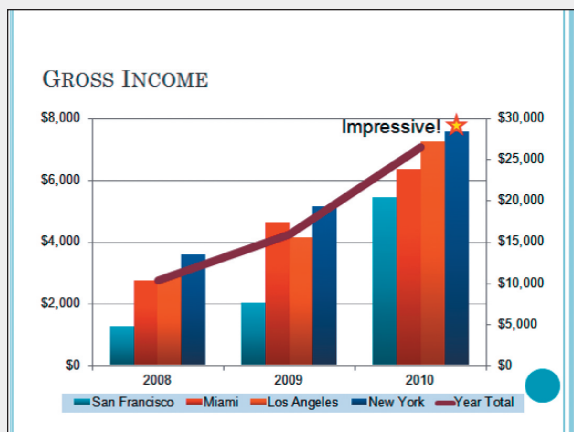
3. Create a clustered column chart (2-D) on the new slide by using the data in Figure 6-29.

**Figure 6-29**  
Worksheet

	A	B	C	D
1		2008	2009	2010
2	San Francisco	1246	2033	5432
3	Miami	2734	4630	6325
4	Los Angeles	2871	4126	7235
5	New York	3566	5135	7555
6	Year Total	10417	15924	26547

4. Switch Row/Column.
5. Close Excel.
6. Plot the “Year Total” data series on a secondary axis. Change the chart type for the series to **Line Chart**. Format the line in a matching color, and change the width to **10**.
7. Change the font for the Vertical (Value) Axis, Horizontal (Category) Axis, Secondary Vertical (Value) Axis, and Legend to 16-point Arial (not bold).
8. For the Vertical (Value) Axis (on the left), change the units to minimum **0** and maximum **8,000**, displayed fixed at major units of **2,000**, and change the number formatting to **Currency** with no decimal places.
9. Format the Secondary Vertical (Value) Axis (on the right) with the units to minimum **0** and maximum **30,000**, displayed fixed at major units of **5,000**, and change the number formatting to **Currency** with no decimal places.
10. Move the legend to the bottom of the chart.
11. Expand the width and height of the chart area to fill the open space.
12. Apply a **Blue, Accent 4, Lighter 80%** fill to the legend area to distinguish it from the slide background.
13. Apply a gradient fill to the columns in each data series. After the first data series has been changed, you will need to choose the fill color for each series selected and then apply the gradient coloring. Choose **Linear Up** in the Dark Variations category so that the lightest color is on top.
14. Click outside the chart area to deselect the chart.
15. Now work in the area at the top of the chart to create the following graphic elements, and then move them into position when complete. Use Zoom to increase the size of the slide so that you can work better in detail.
  - a. Create a text box centered above the chart. Key **Impressive!** in the text box. Change the font to 24-point Arial.
  - b. Draw a small **5-Point Star** with a yellow fill and red outline.
  - c. Place the star on the top of the New York column for the year 2007.
  - d. Place the text box above the columns near the star, as shown in Figure 6-30.

**Figure 6-30**  
Completed chart



16. Create a handout header and footer: Include the date, your name as the header, the page number, and *[your initials]6-26* as the footer.
17. Move to slide 1, and save the presentation as *[your initials]6-26*.
18. Close the presentation and submit your work.

### Exercise 6-27 ♦ Challenge Yourself

**Insert a chart; change the chart style; apply gridlines; format the chart text, data series, and legend; add a picture fill; and add a shape.**

1. Open the file **Suppliers**.
2. On slide 1, key your name as the subtitle.
3. Insert a new slide after slide 2 that uses the **Title and Content** layout. For the slide title, key **Produce Cost Comparison**.
4. Create a **3-D Clustered Column** chart on the new slide by using the data in Figure 6-31.

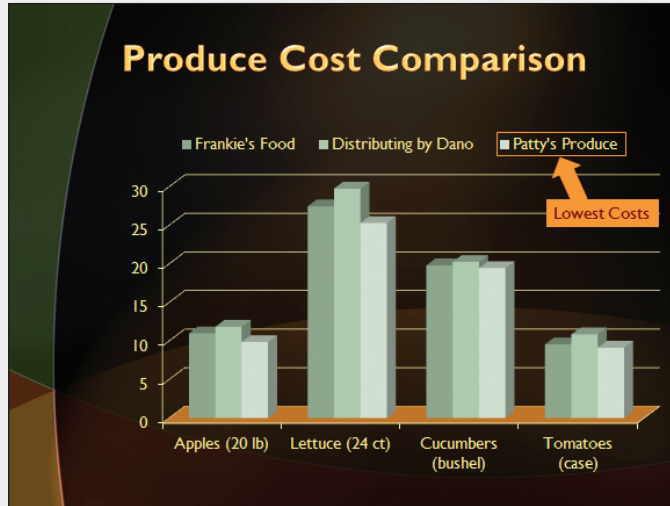
**Figure 6-31**  
Worksheet

	A	B	C	D
1		Frankie's Food	Distributing by Dano	Patty's Produce
2	Apples (20 lb)	10.99	11.84	9.85
3	Lettuce (24 ct)	27.45	29.75	25.29
4	Cucumbers (bushel)	19.8	20.25	19.45
5	Tomatoes (case)	9.55	10.85	9.12

5. Change the chart style to **Style 7**.
6. Change the **Floor** color to the **Orange, Background 1** theme color.
7. Select the legend, and change to a **Top** position.
8. Deselect the chart. Draw a rectangle shape over “Patty’s Produce” in the legend area; then change the fill color to **No Fill** and the outline to **Orange, Background 1**.

9. Add a text box on the right, and key **Lowest Costs**. Change the fill color to **Orange, Background 1** and the text color to **Dark Red, Accent 6**.
10. Add an arrow from the text box pointing to “Patty’s Produce.” Change the fill color and the outline color to **Orange, Background 1**, as shown in Figure 6-32.

**Figure 6-32**  
Completed chart



11. Insert a new slide after slide 3 using the **Title and Content** layout. For the slide title, key **Lead Time Comparison**.
12. Insert a **Line with Markers** chart, and enter the data in Figure 6-33 into the chart.
13. Delete row 5 and columns C and D.

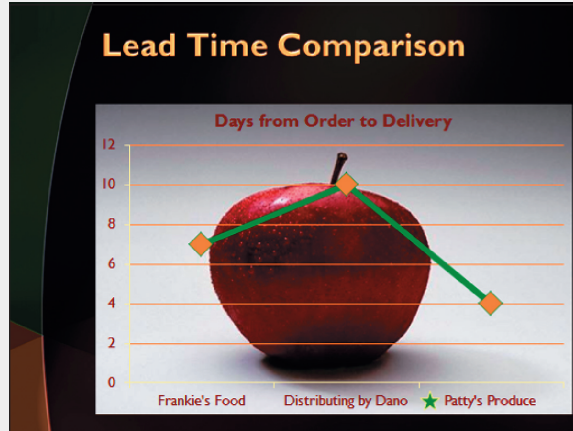
**Figure 6-33**  
Worksheet

	A	B
1		Days from Order to Delivery
2	Frankie's Food	7
3	Distributing by Dano	10
4	Patty's Produce	4

14. Remove the legend.
15. Increase the width of the line to 8 points, and make the line **Green, Accent 1**. Increase the marker size to 28 points, and make the marker **Orange, Background 1**.
16. Reposition the chart to fit evenly on the dark area of the slide.
17. Draw a green **5-pointed star**, and place it in front of the name of the supplier with the lowest lead time.
18. Change the font color of the value and category axes and the chart title to **Dark Red, Accent 2**.

19. Insert the picture **Apple** from your data files into the background of the chart.
20. Change the gridline color to **Orange, Background 1**, as shown in Figure 6-34.

**Figure 6-34**  
Completed chart



21. Create a handout header and footer: Include the date, your name as the header, the page number, and *[your initials]*6-27 as the footer.
22. Move to slide 1, and save the presentation as *[your initials]*6-27.
23. Close the presentation and submit your work.

## On Your Own

**In these exercises you work on your own, as you would in a real-life work environment. Use the skills you've learned to accomplish the task—and be creative.**

### Exercise 6-28

Obtain a list of stock quotes either online or from *The Wall Street Journal*. Create a chart listing at least five of your stock picks. Compare the prices of each stock visually through a chart. Create another chart showing the percentage change in stock value since closing the day before compared with the other stocks you have chosen. In addition, create a separate slide for each stock, giving details about the company. Format the presentation in a way that will hold a viewer's attention. Save your presentation as *[your initials]*6-28. Close the presentation and submit your work.

## Exercise 6-29

Analyze your time management skills by making a list of your activities during a typical weekday, including the actual time you spend on each activity. Group your activities into no more than eight categories. Make sure the times add up to 24 hours. Add a second set of times listing the amount of time you should be spending on each activity, and add a third set of times listing the amount of time you would prefer to spend on each. Create a column or bar chart to depict these times, and then add three pie chart slides, one for each set of times (actual, should, prefer). Add a title slide and a conclusion slide. Use your creativity to make the charts interesting and fun to view—include colors, pictures, shapes, and 3-D rotation. Save the presentation as *[your initials]6-29*. Close the presentation and submit your work.

## Exercise 6-30

Research information about your state of residence from the current census. Prepare slides to explain the facts that you find, using bulleted lists and charts. Find some statistics about diversity within your state, home ownership in your state compared to the national average, types of businesses, and so on, and create at least two charts to display the statistics. Add a title slide and a conclusion slide. Format your presentation attractively, save it as *[your initials]6-30*. Close the presentation and submit your work.