

## ACTIVITY 41: YEARLY EARNINGS

### New Skills Reinforced:

In this activity, you will practice how to:

1. freeze panes in a spreadsheet.

### Activity Overview:

When you receive a paycheck, it is important to examine the "pay stub," an attachment that shows the total pay earned and any deductions such as taxes, social security, Medicare, and IRA's (Individual Retirement Accounts). The amount you earn before taxes and deductions are made to your paycheck is known as your "gross pay." The amount you actually are paid, or "take home," is known as your "net pay."

The following activity illustrates how spreadsheets can be used to calculate a person's weekly and annual gross and net pay. **Note:** In this activity, the employee is paid an hourly rate plus overtime. Overtime is calculated at time and one-half. Or, the hourly rate multiplied by 1.5. To view the headings near the top of a large spreadsheet while scrolling down, it is helpful to freeze the headings. This is known as "Freeze Panes." You will be applying this feature in this activity.

### Instructions:

1. Create a NEW spreadsheet.

**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.

2. Type the data as shown. Type your name in cell A1.
3. Bold rows 1 – 5 and row 33.
4. Underline row 5.
5. Format the width of column A to 12.0 and left align.
6. Format cells A7 – A32 as dates showing mm/dd/yyyy.
7. Format the width of columns B and D to 10.0 and center align.
8. Format the width of column C to 10.0 and center align.
9. Format cells C7 – C32 as numbers displaying 2 decimal places.
10. Format the width of column E to 10.0 and center align.
11. Format the width of columns F – L to 10.0 and right align.
12. Format cells E7 – L33 as numbers displaying 2 decimal places.
13. To make the column headings visible while scrolling down, apply Freeze Panes to the spreadsheet. To do this, place your mouse pointer on cell A6 and choose Window, Freeze Panes.
14. Compute the formulas for the first pay date as follows:
  - a. OVERTIME RATE=HOURLY RATE \* 1.5 -> In cell E7, type =C7\*1.5
  - b. GROSS PAY=(HOURS WORKED \* HOURLY RATE) + (OVERTIME HOURS \* OVERTIME RATE) -> In cell F7, type =(B7\*C7)+(D7\*E7)
  - c. FEDERAL TAX=GROSS PAY \* 15 % -> In cell G7, type =F7\*15%
  - d. SOCIAL SEC. TAX=GROSS PAY \* 6.2 % -> In cell H7, type =F7\*6.2%

NEW SKILL

## Activity 41: Yearly Earnings Instructions Continued

- e. MEDICARE TAX=GROSS PAY \* 1.45 % -> In cell I7, type =F7\*1.45%
  - f. STATE TAX=GROSS PAY \* 4 % -> In cell J7, type =F7\*4%
  - g. 401K PLAN=GROSS PAY \* 10% -> In cell K7, type =F7\*10%
  - h. NET PAY=GROSS PAY - Total Deductions -> In cell L7, type =F7-SUM(G7:K7)
15. Use the AutoFill feature to copy the formulas down for the remaining employees.
  16. Enter formulas to compute the Totals for columns F - L.
  17. Bold row 33.
  18. Insert a header that shows:
    - a. Left Section      Activity 41-Student Name
    - b. Center Section    YEARLY EARNINGS
    - c. Right Section     Current Date
  19. Insert a footer that shows:
    - a. Center Section    PAGE number
  20. Display formulas in your spreadsheet by using <CTRL> + ` to check for accuracy.
  21. Carefully proofread your work for accuracy.
  22. Save the spreadsheet as YEARLY EARNINGS.
  23. Analyze the changes made to the data in the spreadsheet.
  24. Set the Print Area to include all cells containing data in the spreadsheet.
  25. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page. Set the page orientation to landscape.
  26. Print a copy of the spreadsheet if required by your instructor.



**ACTIVITY 41: YEARLY EARNINGS DATA SPREADSHEET**

	A	B	C	D	E	F	G	H	I	J	K	L
1	STUDENT NAME											
2	2005 YEARLY EARNINGS											
3												
4		HOURS	HOURLY	OVERTIME	OVERTIME	GROSS	FEDERAL	SOCIAL	MEDICARE	STATE	401K	NET
5	PAY DATE	WORKED	RATE	HOURS	RATE	PAY	TAX	SEC. TAX	TAX	TAX	PLAN	PAY
6												
7	1/14/2005	75	13.00	0								
8	1/28/2005	80	13.00	3								
9	2/11/2005	80	13.00	4								
10	2/25/2005	76	13.00	0								
11	3/11/2005	74	13.00	0								
12	3/25/2005	78	13.00	0								
13	4/8/2005	73	13.00	0								
14	4/22/2005	70	13.00	0								
15	5/6/2005	78	13.00	0								
16	5/20/2005	71	13.00	0								
17	6/3/2005	80	13.00	1								
18	6/17/2005	74	13.00	0								
19	7/1/2005	79	13.00	0								
20	7/15/2005	80	13.50	2								
21	7/29/2005	76	13.50	0								
22	8/12/2005	80	13.50	3								
23	8/26/2005	80	13.50	4								
24	9/9/2005	77	13.50	0								
25	9/23/2005	70	13.50	0								
26	10/7/2005	73	13.50	0								
27	10/21/2005	75	13.50	0								
28	11/4/2005	72	13.50	0								
29	11/18/2005	75	13.50	0								
30	12/2/2005	80	13.50	2								
31	12/16/2005	80	13.50	7								
32	12/30/2005	80	13.50	8								
33	TOTALS											

## ACTIVITY 42: TEEN CARS

### New Skills Reinforced:

In this activity, you will practice how to:

1. insert WordArt in a spreadsheet.
2. edit and format WordArt.

### Activity Overview:

One thing that every teenager looks forward to is obtaining a driver's license and driving a new car. Auto manufacturers have created lower-priced cars that make the dream of driving a reality for the teen market. Each year, *edmunds.com*, an informational Web site designed for car buyers, publishes its "Top 10 Cheap Cool Cars for Teens."

In this activity, you will be entering *edmunds.com*'s picks for 2006 into a spreadsheet. You will enhance the appearance of the spreadsheet by using WordArt.

### Instructions:

1. Create a NEW spreadsheet.

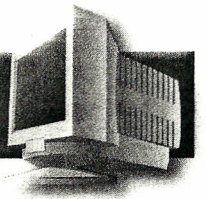
**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.

2. Type the data as shown. Do not insert the WordArt image shown until step 8.
3. Format the width of column A to 16.0 and left align.
4. Format the width of column B to 30.0 and left align.
5. Format the width of columns C and D to 16.0 and right align.
6. Format cells C9 – D18 as currency displaying 0 decimal places and the \$ symbol.
7. Change the font size of cells A6 – D18 to 16 point.
8. Insert a WordArt image similar to the one shown in the Activity 42 Data Spreadsheet. Edit the WordArt text to read "Top 10 Cheap Cool Cars for Teens for 2006" and change the font size to 24. Select a font of your choice. Place the WordArt image so it is centered above the data entered in columns A – D.
9. Insert a header that shows:
  - a. Left Section      Activity 42-Student Name
  - b. Center Section    TEEN CARS
  - c. Right Section     Current Date
10. Insert a footer that shows:
  - a. Center Section    PAGE number
11. Carefully proofread your work for accuracy.
12. Save the spreadsheet as TEEN CARS.
13. Analyze the changes made to the data in the spreadsheet.
14. Set the Print Area to include all cells containing data in the spreadsheet.
15. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page.
16. Print a copy of the spreadsheet if required by your instructor.

#### NEW SKILL



# ACTIVITY 42: TEEN CARS DATA SPREADSHEET



	A	B	C	D
1				
2	<b>Top 10 Cheap Cool Cars for Teens for 2006</b>			
3				
4				
5				
6			MSRP	MSRP
7	Year	Make	Low	High
8				
9	2006	Honda Civic	14360	21940
10	2006	Mazda 3	13710	19165
11	2006	Scion tC	16300	17100
12	2006	Scion xB	14030	14830
13	2007	Honda Fit	13850	15970
14	2006	Ford Mustang	19115	26320
15	2006	Volkswagen Jetta	17900	24865
16	2006	Mitsubishi Eclipse	17900	24865
17	2007	Nissan Versa	12000	16000
18	2006	Pontiac Vibe	15260	19250

## ACTIVITY 43: TV SHOW STANDINGS

### New Skills Reinforced:

In this activity, you will practice how to:

1. insert a line from the drawing toolbar.

### Activity Overview:

Nielsen Ratings® is a system developed by Nielsen Media Research®, a media market research company that tracks the audience size for television, radio, and newspapers. Each week, Nielsen Ratings® are published to rank television program viewership. This information helps networks to see how well certain shows are doing and gives value to a show's advertising potential. Statistics are gathered either by households that maintain a personal diary of the shows they watch or by a small computer connected to each television in a household that tracks and submits data to Nielsen Media Research®. The households surveyed or tracked encompass a wide variety of demographics. The system has been around since its development in the 1960s.

The following activity illustrates how spreadsheets can be used to track the results of a particular week's top-rated television shows. In this activity, you will be using the drawing toolbar to enhance the appearance of a spreadsheet.

### Instructions:

1. Create a NEW spreadsheet.  
**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.
2. Type the data as shown.
3. Change the font size of cell A1 to 18 point.
4. Change the font size of cell A2 to 16 point.
5. Format the height of row 4 to 48.0.
6. Use the AutoFill feature to complete the numbering sequence in cells A5 – A24 for the Rankings in column A.
7. Format the width of column A to 7.0 and left align.
8. Format the width of column B to 30.0 and left align.
9. Format the width of columns C and D to 10.0 and center align.
10. Format the width of column E to 15.0 and center align.
11. Format cells E5 – E24 as time showing h:mm pm.
12. Format the width of columns F and G to 8.0 and right align.
13. Format cells F5 – G24 as numbers displaying 1 decimal place.
14. Format the width of column H to 15.0 and right align.
15. Format cells H5 – H24 as numbers displaying 0 decimals using a comma separator.
16. From the Draw Toolbar, insert a horizontal line in the spreadsheet. Change the line weight to 1.5 pts. Place the line between rows 4 and 5. Resize the line so it stretches across columns A – H.

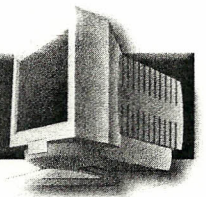
NEW SKILL



## Activity 43: TV Show Standings Instructions Continued

17. Insert a header that shows:
  - a. Left Section      Activity 43-Student Name
  - b. Center Section    TV SHOW STANDINGS
  - c. Right Section     Current Date
18. Insert a footer that shows:
  - a. Center Section    PAGE number
19. Carefully proofread your work for accuracy.
20. Save the spreadsheet as TV SHOW STANDINGS.
21. Analyze the changes made to the data in the spreadsheet.
22. Set the Print Area to include all cells containing data in the spreadsheet.
23. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page.
24. Print a copy of the spreadsheet if required by your instructor.

# ACTIVITY 43: TV SHOW STANDINGS DATA SPREADSHEET



	A	B	C	D	E	F	G	H
1	Nielsen Media Research Top 20							
2	Week of March 20-26, 2006							
3								
4	Rank	Program Name	Network	Day	Time	Rating	Share	Households
5	1	American Idol - Tuesday	FOX	Tue	8:00 PM	19.2	28	21157000
6	2	American Idol - Wednesday	FOX	Wed	9:00 PM	15.9	24	17575000
7		Desperate Housewives	ABC	Sun	9:00 PM	13.5	20	12910000
8		CSI: Miami	CBS	Mon	10:00 PM	13	21	14333000
9		60 Minutes	CBS	Sun	7:39 PM	11	17	12077000
10		Two and a Half Men	CBS	Mon	9:00 PM	10.5	15	10800000
11		Deal or No Deal	NBC	Mon	8:00 PM	9.8	15	10800000
12		The Unit	CBS	Tue	9:00 PM	9.8	14	10770000
13		Grey's Anatomy	ABC	Sun	10:01 PM	9.7	16	10679000
14		Lost	ABC	Wed	9:00 PM	9.7	14	10672000
15		Old Christine	CBS	Mon	9:30 PM	9.7	14	10699000
16		Unanimous	FOX	Wed	9:30 PM	9.5	14	10434000
17		Cold Case	CBS	Sun	8:39 PM	9.4	14	10310000
18		Law and Order: SVU	NBC	Tue	10:00 PM	9.2	15	10149000
19		CSI: NY	CBS	Wed	10:00 PM	9.1	15	10055000
20		E.R.	NBC	Thu	9:59 PM	9	15	9963000
21		Deal or No Deal	NBC	Wed	8:00 PM	8.9	14	9806000
22		CBS NCAA Post	CBS	Sun	7:31 PM	8.5	15	9353000
23		24	FOX	Mon	9:00 PM	8.3	12	9160000
24		American Inventor	ABC	Thu	9:00 PM	8	12	8783000

Source: <http://tv.yahoo.com/nielsen/>



## ACTIVITY 44: STUDENT TRAVEL

### New Skills Reinforced:

In this activity, you will practice how to:

1. format cells as accounting.
2. apply borders to a cell range.

### Activity Overview:

Many students love to travel but hate the high prices of airfare. However, many discounts are available for the student traveler. Besides buying student-discounted railway passes and staying at youth hotels, students also have access to lower-priced airline tickets. The trick is to know where to shop and be flexible about where you want to go. Many Internet travel agents require that students sign up for newsletters and email alerts, but the hassle may be worth the money one can save on travel.

The following activity illustrates how spreadsheets can be used to list student-discounted airfares. In this activity, you will format a range of numbers in cells as Accounting.

### Instructions:

1. Create a NEW spreadsheet.

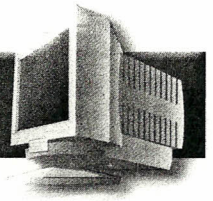
**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.

2. Type the data as shown.
3. Change the font size of cell A1 to 16 point.
4. Format the width of column A to 20.0, column B to 12.0, and column C to 16.0.
5. Format the height of row 3 to 48.0 and bold the row.
6. Format cells A3 – C3 with a thick border outline.
7. Format column C as accounting displaying 2 decimal places and the \$ symbol.
8. Insert a header that shows:
  - a. Left Section      Activity 44-Student Name
  - b. Center Section    STUDENT TRAVEL
  - c. Right Section     Current Date
9. Insert a footer that shows:
  - a. Center Section    PAGE number
10. Carefully proofread your work for accuracy.
11. Save the spreadsheet as STUDENT TRAVEL.
12. Analyze the changes made to the data in the spreadsheet.
13. Set the Print Area to include all cells containing data in the spreadsheet.
14. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page.
15. Print a copy of the spreadsheet if required by your instructor.

NEW SKILL

NEW SKILL

# ACTIVITY 44: STUDENT TRAVEL DATA SPREADSHEET



	A	B	C
1	Sample Student Airfares		
2			
3	Departing	Arriving	Round Trip Fare
4	San Francisco	Los Angeles	117
5	Memphis	Chicago	151
6	Boston	Indianapolis	172
7	Washington	Dallas	193
8	New York	London	203
9	Detroit	Denver	207
10	New York	Johannesburg	958
11	Philadelphia	Brussels	340
12	Boston	Paris	376
13	Washington	Prague	399
14	New York	Milan	408
15	Los Angeles	Berlin	513
16	Detroit	Amsterdam	598



## ACTIVITY 45: AMERICAN IDOL®

### New Skills Reinforced:

In this activity, you will practice how to:

1. create a pie chart.
2. enhance charts by changing colors and font sizes.

### Activity Overview:

American Idol® has truly become one of America's biggest and most watched television shows. With its debut in the summer of 2002, this show, based on Britain's Pop Idol, became an instant success. Hosted by Ryan Seacrest, the Dick Clark of our day, American Idol® grows bigger and bigger each season. The show's three judges, Simon Cowell, Paula Abdul, and Randy Jackson have become household names, along with the winning contestants from each season.

The authors of this book surveyed 24 American Idol® viewers and asked who their favorite American Idol® singer was. The following activity illustrates how spreadsheets can be used to create a pie chart that illustrates this distribution.

### Instructions:

1. Create a NEW spreadsheet.

**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.

2. Type the data as shown.
3. Change the font size of cell A1 to 16 point.
4. Format the width of column A to 26.0 and left align.
5. Format the width of column B to 22.0 and center align.
6. Bold rows 1 and 3.

#### NEW SKILL

7. Create a pie chart as follows:
  - a. Select cells A1– B8.
  - b. Using the Chart Wizard, select Pie for the Chart type. The Chart sub-type should be Pie.
  - c. Set the chart to Series in Columns.
  - d. Enter the chart title as "AMERICAN IDOL FAVORITES."
  - e. Display the legend to the right of the pie chart.
  - f. Show no data labels.
  - g. Save the chart as a new sheet. Name the new sheet AMERICAN IDOL CHART.

#### NEW SKILL

8. Format the Chart Area with a background color of peach.

#### NEW SKILL

9. Format the colors of each piece of the pie chart as follows:
  - a. Kelly Clarkson -> purple
  - b. Reuben Studdard -> green
  - c. Clay Aiken -> yellow
  - d. Fantasia Barrino -> turquoise
  - e. Carrie Underwood -> pink

## Activity 45: American Idol® Instructions Continued

### NEW SKILL

10. Format the chart's legend background color to light blue and change the font size to 16 point.

### NEW SKILL

11. Format the chart's title to blue and change the font size to 24 point and bold.

12. When formatted, your chart should look similar to the one provided in Figure 1-45.

13. Insert a header for both the spreadsheet and the chart that shows:

- a. Left Section      Activity 45-Student Name
- b. Center Section    AMERICAN IDOL
- c. Right Section     Current Date

14. Insert a footer that shows:

- a. Center Section    PAGE number

15. Carefully proofread your work for accuracy.

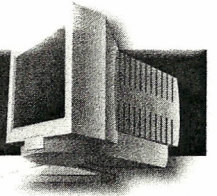
16. Analyze the changes made to the data in the spreadsheet.

17. Save the spreadsheet as AMERICAN IDOL.

18. Print Preview and adjust the Page Setup so that the spreadsheet and the chart each fit on one page. Set the page orientation to landscape for the chart.

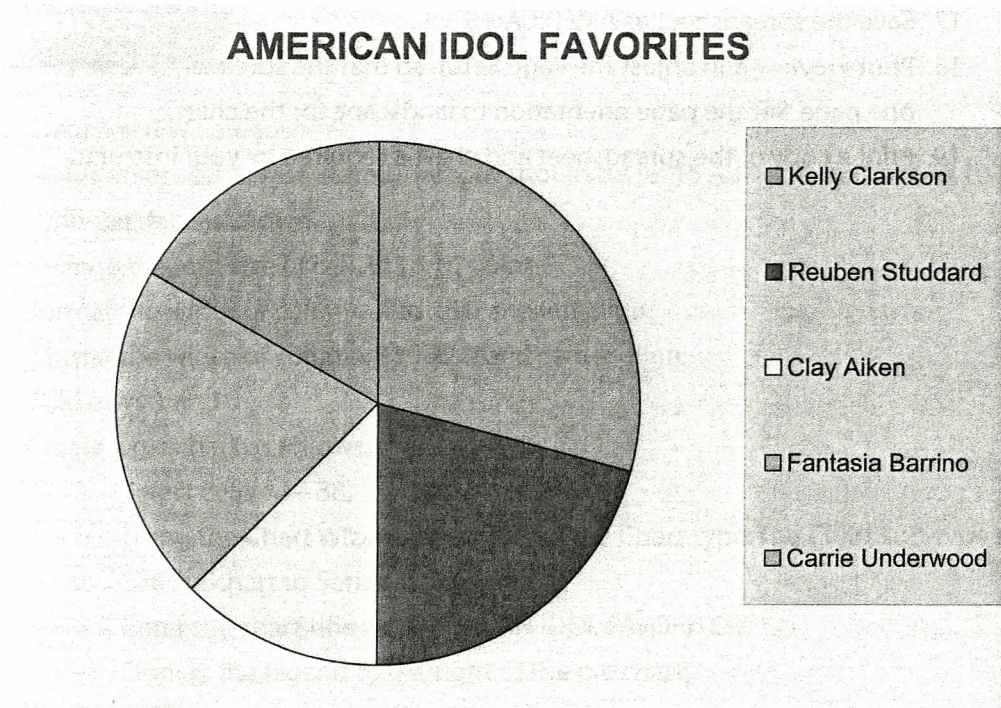
19. Print a copy of the spreadsheet and chart if required by your instructor.





	A	B	C
1	AMERICAN IDOL		
2			
3	CONTESTANT	VOTES FOR FAVORITE	
4	Kelly Clarkson	7	
5	Reuben Studdard	5	
6	Clay Aiken	3	
7	Fantasia Barrino	5	
8	Carrie Underwood	4	

Figure 1-45



## ACTIVITY 46: ITUNES®

### New Skills Reinforced:

In this activity, you will practice how to:

1. create a column chart.

### Activity Overview:

The existence of iTunes® has made it easy for anyone with a computer and an Internet connection to create and organize their own music and video library. Songs and music videos can be downloaded from Apple's® iTunes® Web site ([www.itunes.com](http://www.itunes.com)) quickly and easily. Users can share music with other users, create playlists, and take their music collections with them wherever they want on an iPod®. The popularity of iTunes® is forecasted to continue to grow.

The following activity illustrates how spreadsheets can be used to create a bar graph to analyze the frequency of popular iTunes® downloaded.

### Instructions:

1. Create a NEW spreadsheet.

**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.

2. Type the data as shown.
3. Change the font size in cell A1 to 16 point and bold the cell.
4. Format the width of column A to 36.0 and left align.
5. Format the width of column B to 14.0 and center align.
6. Bold row 3.

#### NEW SKILL

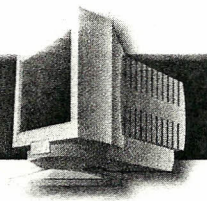
7. Create a column chart as follows:
  - a. Select cells A3 – B13.
  - b. Using the Chart Wizard, select Column for the Chart type and Clustered Column for the Chart sub-type.
  - c. Set the chart to Series in Columns.
  - d. Enter the chart title as "MOST POPULAR iTUNES DOWNLOADED," the title for category (X) axis as "SONG, ARTIST" and the title for value (Y) axis as "FREQUENCY."
  - e. Display the legend to the right of the chart.
  - f. Show no data labels.
  - g. Save the chart as a new sheet. Name the new sheet iTUNES CHART.
8. Format the style and colors of the chart as follows:
  - a. Change the background color of the Chart Area to turquoise.
  - b. Change the background color of the Plot Area to yellow.
  - c. Change the colors of the bars to purple.
  - d. Format the chart title and axis titles to font size 12 point and bold.
  - e. Change the text alignment of the song titles to 90 degrees.
  - f. Change the major unit of the frequency numbers to 2000 and the minor unit to 500.



## Activity 46: iTunes® Instructions Continued

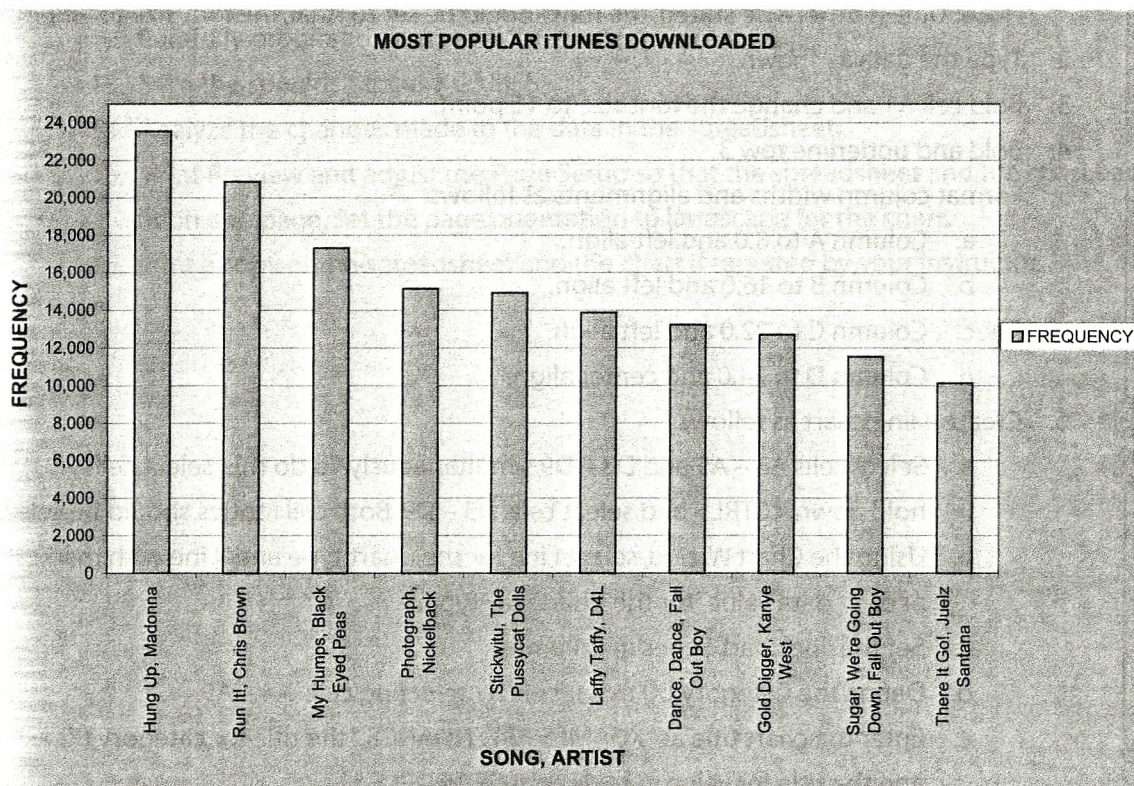
9. When formatted, your chart should look similar to the one provided in Figure 1-46.
10. Insert a header for both the spreadsheet and the chart that shows:
  - a. Left Section      Activity 46-Student Name
  - b. Center Section    iTUNES
  - c. Right Section     Current Date
11. Insert a footer for both the chart and spreadsheet that shows:
  - a. Center Section    PAGE number
12. Carefully proofread your work for accuracy.
13. Save the spreadsheet as iTUNES.
14. Analyze the changes made to the data in the spreadsheet.
15. Print Preview and adjust the Page Setup so that the spreadsheet and the chart each fit on one page. Set the page orientation to landscape for the chart.
16. Print a copy of the spreadsheet and chart if required by your instructor.

# ACTIVITY 46: ITUNES® DATA SPREADSHEET



	A	B
1	MOST POPULAR iTUNES DOWNLOADED	
2		
3	SONG, ARTIST	FREQUENCY
4	Hung Up, Madonna	23,548
5	Run It!, Chris Brown	20,874
6	My Humps, Black Eyed Peas	17,311
7	Photograph, Nickelback	15,143
8	Stickwitu, The Pussycat Dolls	14,924
9	Laffy Taffy, D4L	13,882
10	Dance, Dance, Fall Out Boy	13,233
11	Gold Digger, Kanye West	12,716
12	Sugar, We're Going Down, Fall Out Boy	11,533
13	There It Go!, Juelz Santana	10,135

Figure 1-46





## ACTIVITY 47: X GAMES®

### New Skills Reinforced:

In this activity, you will practice how to:

1. create a line chart.
2. select cells using multiple ranges.
3. use the Fill Effects feature in a chart.

### Activity Overview:

With the debut of the X Games® in 1995, extreme sports became visible and more main stream. Sports such as BMX, skateboarding, wakeboarding, snowboarding, and surfing finally received recognition as "real sports." Athletes that perform extreme sports are now just as famous as baseball, football, and basketball stars. Sports enthusiasts and spectators alike seem to enjoy the thrill and action involved in these sports. Young children now aspire to be just like the thrill-seekers that they watch during the X Games®.

The following activity illustrates how spreadsheets can be used to graph the spectator attendance at X Games® over the years.

### Instructions:

1. Create a NEW spreadsheet.

**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.

2. Type the data as shown.
3. Bold cell A1 and change the font size to 16 point.
4. Bold and underline row 3.
5. Format column widths and alignments as follows:
  - a. Column A to 8.0 and left align.
  - b. Column B to 16.0 and left align.
  - c. Column C to 22.0 and left align.
  - d. Column D to 24.0 and center align.

NEW SKILL

6. Create a line chart as follows:

NEW SKILL

- a. Select cells A3 – A9 and D3 – D9 simultaneously. To do this, select cells A3 – D9, then, hold down <CTRL> and select cells D3 – D9. Both cell ranges should be selected.
- b. Using the Chart Wizard, select Line for the Chart type and "Line with markers displayed at each data value" for the Chart sub-type.
- c. Set the line chart Series in Columns.
- d. Define the Category (X) axis labels by selecting cells A4 – A9.
- e. Enter the chart title as "XGAMES ATTENDANCE," the title for category (X) axis as "YEAR," and the title for value (Y) axis as "# OF PEOPLE."
- f. Display the legend to the right of the chart.
- g. Show no data labels.
- h. Save the chart as a new sheet. Name the new sheet XGAMES CHART.

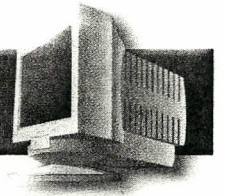
## Activity 47: X Games® Instructions Continued

### NEW SKILL

7. Format the style and colors in the chart as follows:
  - a. Change the background color of the Chart Area using the Fill Effects feature. Choose a Gradient effect with two colors. Set Color 1 to blue and color 2 to light pink with horizontal shading style.
  - b. Change the background color of the Plot Area to peach.
  - c. Change the font size of the title in the chart to 20 point.
  - d. Change the font size of the X and Y axis titles to 14 point.
8. Change the text alignment of the YEARS to 90 degrees.
9. When formatted, your chart should look similar to the one provided in Figure 1-47.
10. Insert a header for both the spreadsheet and the chart that shows:
  - a. Left Section      Activity 47-Student Name
  - b. Center Section    XGAMES
  - c. Right Section     Current Date
11. Insert a footer that shows:
  - a. Center Section    PAGE number
12. Carefully proofread your work for accuracy.
13. Save the spreadsheet as XGAMES.
14. Analyze the changes made to the data in the spreadsheet.
15. Print Preview and adjust the Page Setup so that the spreadsheet and the chart each fit on one page. Set the page orientation to landscape for the chart.
16. Print a copy of the spreadsheet and the chart if required by your instructor.



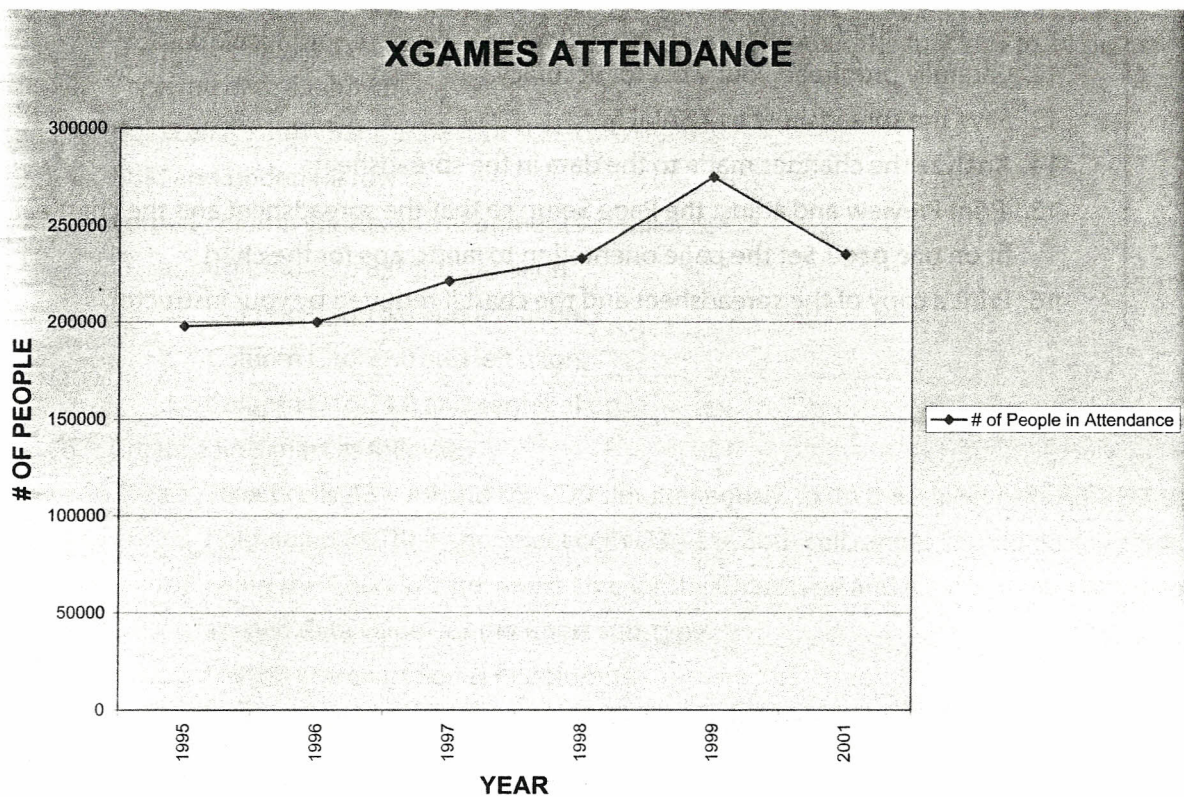
# ACTIVITY 47: X GAMES® DATA SPREADSHEET



	A	B	C	D
1	History of the X Games			
2				
3	Year	Number	Location	# of People in Attendance
4	1995	X Games One	Providence & Newport, RI	198000
5	1996	X Games Two	Newport, RI	200000
6	1997	X Games Three	San Diego, CA	221200
7	1998	X Games Four	San Diego, CA	233000
8	1999	X Games Five	San Francisco, CA	275000
9	2001	X Games Seven	Philadelphia, PA	235000
10				
11	Data not available for the years 2000, 2002, 2003, 2004, 2005, 2006.			

Source: [http://en.wikipedia.org/wiki/X\\_Games#X\\_Games\\_Sports](http://en.wikipedia.org/wiki/X_Games#X_Games_Sports)

Figure 1-47



## ACTIVITY 48: MTV®

### New Skills Reinforced:

In this activity, you will practice how to:

1. create a bar chart.
2. align text in a chart.

### Activity Overview:

In 1997, MTV® began what has now become a top-rated video show. Total Request Live, or TRL as it is more popularly known, airs daily on MTV® and highlights the day's most requested videos before a live audience. Registered members of MTV.com® can cast one vote per day for their favorite video. Each afternoon, TRL showcases the top 10 videos along with live performances and celebrity interviews. The show has a loyal following and is part of today's pop culture. Since videos may dominate the countdown for some time, the show has adopted a retirement program for all videos that stay on the countdown for 50 days.

The following activity illustrates how spreadsheets can be used to graphically compare the number of weeks a music video stayed at number one on MTV's® Total Request Live.

### Instructions:

1. Create a NEW spreadsheet.

**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.

2. Type the data as shown.
3. Bold cell A1 and change the font size to 16 point.
4. Bold rows 1, 2, and 4.
5. Left align cells A4 – D20.
6. Format the width of columns A – C to 22.0.
7. Format the width of column D to 12.0.

#### NEW SKILL

8. Create a bar chart as follows:
  - a. Select cells B4 – B20 and D4 – D20 simultaneously. To do this, select cells B4 – B20 then, hold down <CTRL> and select cells D4 – D20. Both cell ranges should be selected.
  - b. Using the Chart Wizard, select Bar for the Chart type and Clustered Bar for the Chart sub-type.
  - c. Set the bar chart to Series in Columns.
  - d. Enter the chart title as "WEEKS AT #1," the title for category (X) axis as "SONG," and the title for value (Y) axis as "# OF WEEKS."
  - e. Display the legend to the right of the chart.
  - f. Show no data labels.
  - g. Save chart as a new sheet. Name the new sheet as MTV CHART.

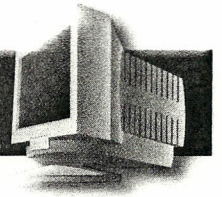


## Activity 48: MTV® Instructions Continued

### NEW SKILL

9. Format the style of the chart as follows:
  - a. Change the font size of the song titles to 8 point.
  - b. Change the font size of the title to 16 point and bold.
  - c. Change the text alignment of the songs to 45 degrees.
10. When formatted, your chart should look similar to the one provided in Figure 1-48.
11. Insert a header for both the spreadsheet and the chart that shows:
  - a. Left Section      Activity 48-Student Name
  - b. Center Section    MTV
  - c. Right Section     Current Date
12. Insert a footer that shows:
  - a. Center Section    PAGE number
13. Carefully proofread your work for accuracy.
14. Save the spreadsheet as MTV.
15. Analyze the changes made to the data in the spreadsheet.
16. Print Preview and adjust the Page Setup so that the spreadsheet and the chart each fit on one page. Set the page orientation to landscape for the chart.
17. Print a copy of the spreadsheet and chart if required by your instructor.

# ACTIVITY 48: MTV® DATA SPREADSHEET

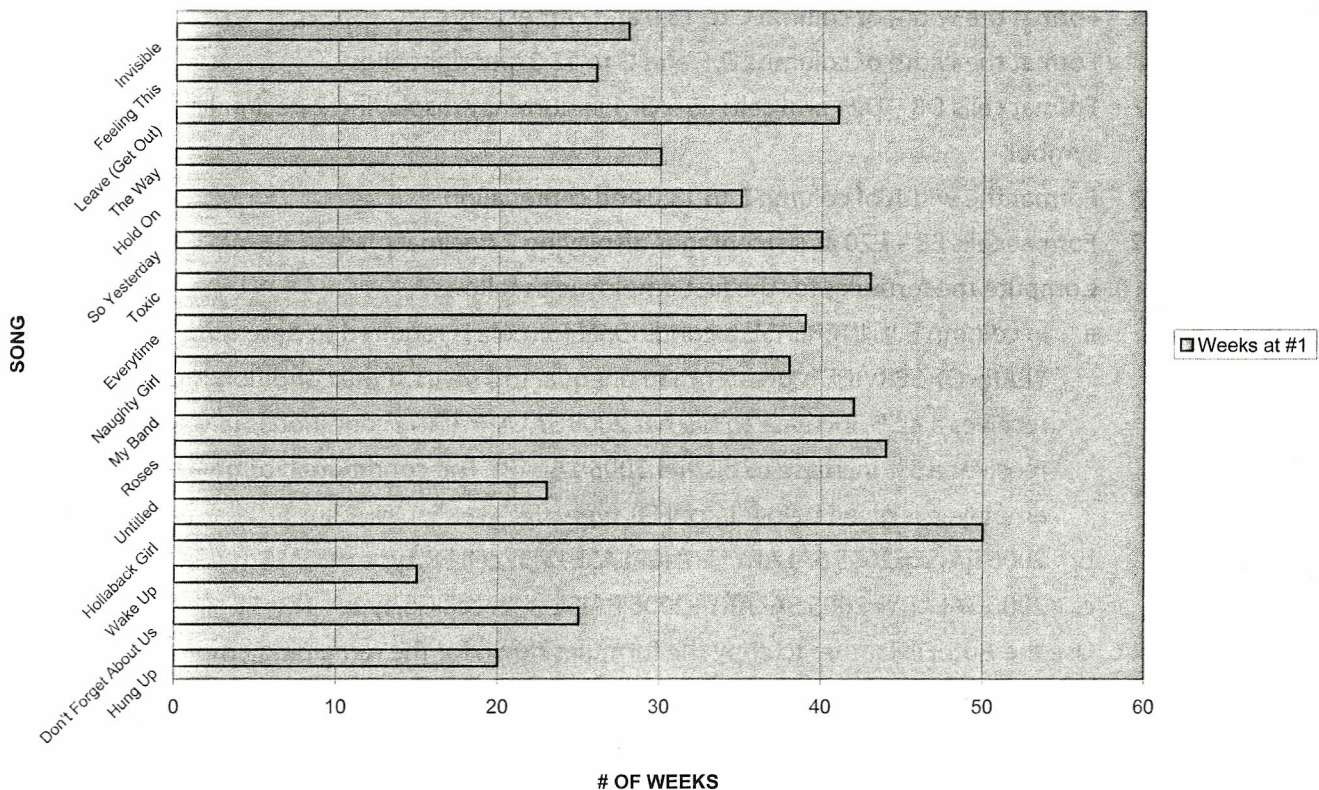


	A	B	C	D
1	MTV Total Request Live			
2	Retired Videos			
3				
4	Artist	Song	Label	Weeks at #1
5	Madonna	Hung Up	Warner Bros.	20
6	Mariah Carey	Don't Forget About Us	Island	25
7	Hilary Duff	Wake Up	Hollywood Records	15
8	Gwen Stefani	Hollaback Girl	Interscope	50
9	Simple Plan	Untitled	Lava	23
10	Outkast	Roses	LaFace	44
11	D12	My Band	Shady/Interscope Records	42
12	Beyonce	Naughty Girl	Columbia Records	38
13	Britney Spears	Everytime	Jive	39
14	Britney Spears	Toxic	Jive	43
15	Hilary Duff	So Yesterday	Hollywood Records	40
16	Good Charlotte	Hold On	Daylight/Epic Records	35
17	Clay Aiken	The Way	RCA	30
18	JoJo	Leave (Get Out)	Da Family	41
19	Blink 182	Feeling This	Geffen Records	26
20	Clay Aiken	Invisible	RCA	28

Source: MTV.com

Figure 1-48

WEEKS AT #1





## ACTIVITY 49: RAISE

### New Skills Reinforced:

In this activity, you will practice how to:

1. use conditions in formulas to determine a desired result.

### Activity Overview:

The Castleton Company is changing its procedures on salary raises. Instead of everyone getting the same raise, management has decided to base raises on the condition of number of years of service to the company. Employees who have been with the company five years or more will receive a 4.5 percent raise. All other employees will receive a 3 percent raise.

The following activity illustrates how spreadsheets can be used to calculate the raise percent, actual raises, bonuses, and determine each employee's salary for 2006.

### Instructions:

1. Create a NEW spreadsheet.  
**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.
2. Type the data as shown.
3. Bold rows 1 – 6 and row 21.
4. Format the width of columns A and B to 15.0 and left align.
5. Format the width of column C to 13.0 and center align.
6. Format the width of columns D, F, and G to 13.0 and right align.
7. Format cells D8 – D21 and cells F8 – G21 as currency displaying 2 decimal places and the \$ symbol.
8. Format the width of column E to 13.0 and center align
9. Format cells E8 – E20 as percentages displaying 2 decimal places.
10. Compute the formulas for the first employee as follows:
  - a. In column E, % INCREASE, a conditional formula is required to determine if each employee's YEARS OF SERVICE is greater than or equal to 5 years. If the condition is true, the employee receives a 4.5% increase to his/her 2005 SALARY. If the condition is false, the employee receives a 3% increase to his/her 2005 SALARY. The conditional formula for the first employee is given below. In cell E8, type `=IF(C8>=5,4.5%,3%)`
  - b. 2006 RAISE=2005 SALARY\*% INCREASE -> In cell F8, type `=D8*E8`
  - c. 2006 SALARY=2005 SALARY+2006 RAISE -> In cell G8, type `=D8+F8`
11. Use the AutoFill feature to copy the formulas down for the remaining employees.
12. Enter formulas to compute the totals for columns D, F, and G.

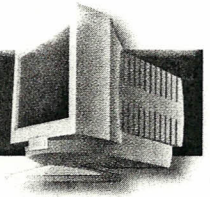
#### NEW SKILL

## Activity 49: Raise Instructions Continued

13. Insert a header that shows:
  - a. Left Section      Activity 49-Student Name
  - b. Center Section    RAISE
  - c. Right Section     Current Date
14. Insert a footer that shows:
  - a. Center Section    PAGE number
15. Display formulas in your spreadsheet by using <CTRL> + ` to check for accuracy.
16. Carefully proofread your work for accuracy.
17. Save the spreadsheet as RAISE.
18. Analyze the changes made to the data in the spreadsheet.
19. Set the Print Area to include all cells containing data in the spreadsheet.
20. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page.
21. Print a copy of the spreadsheet if required by your instructor.



# ACTIVITY 49: RAISE DATA SPREADSHEET



	A	B	C	D	E	F	G
1	CASTLETON INC.						
2	SCHEDULE OF RAISES						
3	EFFECTIVE DATE: 1/1/2006						
4							
5			YEARS OF	2005	%	2006	2006
6	LAST	FIRST	SERVICE	SALARY	INCREASE	RAISE	SALARY
7							
8	Acuin	Rita	16	49000			
9	Anthony	Thomas	11	35000			
10	Autovino	Sandy	5	17500			
11	Baptiste	Janice	3	20000			
12	Becknel	Carlos	15	23000			
13	Brothers	Jessica	4	27000			
14	Carrubba	Thomas	8	30000			
15	Chinnici	Virginia	9	35000			
16	Cleland	Rochelle	2	27000			
17	Depalma	Antonella	10	41500			
18	Dickerman	Gloria	3	27000			
19	Doyle	Samantha	11	43000			
20	Goldstein	Lane	15	55000			
21	TOTALS						

## ACTIVITY 50: TEACHER'S GRADE BOOK

### New Skills Reinforced:

In this activity, you will practice how to:

1. use the Median and Mode functions.
2. use multiple conditions in formulas to determine a desired result.

### Activity Overview:

Assume that your computer teacher has asked you for help in setting up a spreadsheet to organize and calculate grades. The students have handed in three homework assignments and have taken four tests so far this semester.

In this activity, you will create a spreadsheet that calculates student's averages, determines whether a student passes or fails, and determines the letter grade students receive based on a conditional statement. For a student to PASS, his or her numerical average must be greater than or equal to 59.50. To determine the letter grade for each student, use the chart provided below.

Numerical Grade	Letter Grade Equivalent
Greater than or equal to 89.50	A
Greater than or equal to 79.50	B
Greater than or equal to 69.50	C
Greater than or equal to 59.50	D
Less than 59.50	F

In addition to using previously practiced skills, you will be using the MODE and MEDIAN functions. Each of these functions is defined below with respect to what each function yields in this activity.

**MODE** Calculates the most frequently achieved numerical grade for each assignment or test.

**MEDIAN** Calculates the numerical grade that falls in the middle of each assignment or test.

### Instructions:

1. Create a NEW spreadsheet.  
**Note:** Unless otherwise stated, the font should be set to Arial, the font size to 10 point.
2. Type the data as shown.
3. Bold cell A1 and row 2.
4. Bold and underline row 3.
5. Format the width of columns A and B to 14.0 and left align.
6. Format the width of columns C – K to 8.0, column L to 10.0, and column M to 8.0.
7. Center align columns C – M.
8. Bold rows 41 – 45.
9. Format cells C5 – K45 as numbers displaying 0 decimal places.



## Activity 50: Teacher's Grade Book Instructions Continued

10. Input the formulas for the first student as follows:

- a. In cell F5, the HW AVG (Homework Average), type `=AVERAGE(C5:E5)`
- b. In cell K5, the NUM. AVG (Numerical Average), type `=AVERAGE(F5:J5)`
- c. In cell L5, PASS/FAIL, type `=IF(K5>=59.5,"PASS","FAIL")`
- d. In cell M5, the LETTER GRADE, type  
`=IF(K5>=89.5,"A",IF(K5>=79.5,"B",IF(K5>=69.5,"C",IF(K5>=59.5,"D",IF(K5<59.5,"F")))))`

**NEW SKILL** →

11. Use the AutoFill feature to copy the formulas down for the remaining students.

12. Input the formulas for the AVERAGE, MAXIMUM, MINIMUM, MODE, and MEDIAN functions as follows:

- a. In cell C41, the AVERAGE, type `=AVERAGE(C5:C39)`
- b. In cell C42, the MAXIMUM, type `=MAX(C5:C39)`
- c. In cell C43, the MINIMUM, type `=MIN(C5:C39)`
- d. In cell C44, the MODE, type `=MODE(C5:C39)`
- e. In cell C45, the MEDIAN, type `=MEDIAN(C5:C39)`

**NEW SKILL** →

**NEW SKILL** →

13. Use the AutoFill feature to copy the formulas across to column K for the remaining homeworks (HW) and TESTS.

14. Insert a header that shows:

- a. Left Section      Activity 50-Student Name
- b. Center Section    TEACHER'S GRADE BOOK
- c. Right Section     Current Date

15. Insert a footer that shows:

- a. Center Section    PAGE number

16. Display formulas in your spreadsheet by using `<CTRL> + `` to check for accuracy.

17. Carefully proofread your work for accuracy.

18. Save the spreadsheet as TEACHER'S GRADE BOOK.

19. Analyze the changes made to the data in the spreadsheet.

20. Set the Print Area to include all cells containing data in the spreadsheet.

21. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page. Set the page orientation to landscape.

22. Print a copy of the spreadsheet if required by your instructor.

**ACTIVITY 50: TEACHER'S GRADE BOOK DATA SPREADSHEET**

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	MY TEACHER'S GRADE BOOK												
2						HW					NUM.		LETTER
3	LAST	FIRST	HW 1	HW 2	HW 3	AVG	TEST 1	TEST 2	TEST 3	TEST 4	AVG	PASS/FAIL	GRADE
4													
5	Allen	Casida	75	0	80		85	90	83	78			
6	Begum	Marvin	75	70	0		55	87	49	38			
7	Caines	Kevin	75	75	80		49	65	78	65			
8	Campbell	Jefferson	85	90	90		97	87	85	91			
9	Cheung	Alex	75	80	85		100	95	85	90			
10	Chu	Daisy	75	80	85		70	65	64	70			
11	Duong	Jimmy	60	0	60		50	63	78	67			
12	Francois	Dana	90	95	95		98	87	91	93			
13	Glicksman	Rudy	75	0	70		97	88	92	93			
14	Gondal	Mohammed	85	80	85		87	68	75	55			
15	Harper	Jonathan	70	85	80		87	65	54	87			
16	Jiang	Shirley	80	80	85		93	87	80	75			
17	Khan	Arita	0	60	0		55	45	36	60			
18	Kharkover	Arbiana	75	80	85		87	98	79	83			
19	Kizima	Sofi	85	85	80		73	65	63	71			
20	Lau	Allison	75	80	80		87	54	69	78			
21	Leung	Helen	95	90	95		85	98	98	98			
22	Mattison	Gavin	60	70	65		68	78	78	78			
23	Minauro	Rebekah	50	0	65		65	65	65	65			
24	Mui	Shien	70	65	0		65	70	55	62			
25	Noelus	Gerald	85	80	85		78	87	82	87			
26	Osman	Kenon	90	95	90		90	95	85	47			
27	Rahman	Khubaib	80	90	95		95	100	98	92			
28	Reyes	Kali	90	70	75		78	87	60	69			
29	Sabine	Joseph	75	90	85		98	75	78	87			
30	Shien	Shabbaz	85	90	75		80	65	64	65			
31	Shulovsky	Yulia	90	70	80		78	63	78	78			
32	Skobeleva	Faisal	100	95	95		98	87	91	100			
33	Teo	Diana	75	80	70		65	85	50	78			
34	Wang	Timothy	75	80	75		69	45	36	45			
35	Wong	Liping	80	85	90		78	90	97	98			
36	Xue	Jenny	90	95	100		98	97	87	87			
37	Yan	Zhi Xian	95	100	90		88	98	89	78			
38	Zheng	Dana	80	80	85		78	75	76	87			
39	Zhu	Karl	85	80	80		82	84	86	80			
40													
41	AVERAGE												
42	MAXIMUM												
43	MINIMUM												
44	MODE												
45	MEDIAN												