49 NBA® Standings 2

1. Expand on the use of the absolute cell reference in formulas.
2. Freeze panes in a spreadsheet.

Activity Overview

The following activity illustrates how spreadsheets can be used to compute the relationship between the first place team and all the other teams in the division using a formula with an absolute cell reference. An absolute cell reference is used when a reference to a cell's address (either the row, column, or both) must remain fixed. In this activity, you will be using an absolute cell reference to compute the number of "games back" each NBA® team is from the first place team in each division.

This activity not only expands on the NBA® Standings spreadsheet created in Activity 30, you will learn how to freeze the heading of the table in order to view the heading while scrolling down the large table. This is known as "Freeze Panes."

Instructions

1. Open the file NBA STANDINGS previously created in Activity 30.

★ *Unless otherwise stated, the font should be 10 point Arial.*

2. Delete row 1 containing "Activity 30 Student Name."

NEW SKILL ▶ 3. To make the spreadsheet heading visible while scrolling down, place your mouse pointer on cell A2 and apply Freeze Panes.

NEW SKILL ▶ 4. Input the formulas for GB (Games Back) for the first place team in each division as follows: (The $ that is used in each formula creates an absolute cell reference to the cells containing the first place team's number of wins in each division.)

   a. In cell E6, type =$B$6-B6

     • *Use the AutoFill feature to copy the formula down for the remaining teams in the Atlantic Division.*

   b. In cell E13, type = $B$13-B13

     • *Use the AutoFill feature to copy the formula down for the remaining teams in the Central Division.*

   c. In cell E20, type =$B$20-B20

     • *Use the AutoFill feature to copy the formula down for the remaining teams in the Southeast Division.*

   d. In cell E28, type =B$28-B28

     • *Use the AutoFill feature to copy the formula down for the remaining teams in the Northwest Division.*

e. In cell E35, type =$B$35-B35

• *Use the AutoFill feature to copy the formula down for the remaining teams in the Pacific Division.*

f. In cell E42, type =$B$42-B42

• *Use the AutoFill feature to copy the formula down for the remaining teams in the Southwest Division.*

5. Format column E as accounting displaying 0 decimal places and no symbol.

6. Insert a header that shows:

   a. Left Section   Activity 49-Student Name

   b. Center Section   NBA STANDINGS 2

   c. Right Section   Current Date

7. Insert a footer that shows:

   a. Center Section   PAGE number

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

9. Carefully proofread your work for accuracy.

10. Save the spreadsheet as NBA STANDINGS 2.

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

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

13. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page.

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

1. Create a NEW spreadsheet.

★ *Unless otherwise stated, the font should be 10 point Arial.*

2. Type the data as shown.

3. Bold rows 1 – 15.

4. Change the font size of cell A1 to 16 point.

5. Format the width of columns A – F to 16.0.

6. Format cell C4 as percentages displaying 3 decimal places.

7. In cell B16, enter the formula =PMT($C$4/12,B$11,-$A16)

8. Select cells B16 – F50 and use the AutoFill feature to copy the formula entered in cell B16 to the remaining cells.

9. Format cells A16 – F50 as currency displaying 2 decimal places and the $ symbol.

10. Right align cells A8 – F50.

11. Format cells B10 – F10 to show a bottom border (as shown in the Data Spreadsheet).

12. Insert a header that shows:
   a. Left Section   Activity 50-Student Name
   b. Center Section   YACHT MORTGAGE CALCULATOR
   c. Right Section   Current Date

13. Insert a footer that shows:
   a. Center Section   PAGE number

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

15. Carefully proofread your work for accuracy.

16. Save the spreadsheet as YACHT MORTGAGE CALCULATOR.

Activity Overview

Picture this... you're a yacht dealer, and your job is to buy boats at a low point and write off some of the payment to save on federal dollars owed to the IRS. Assume that you work for USA Loan Company. Your potential clients constantly want to know how much their monthly payments will be for different loan amounts. Knowing how to calculate different loans based on varying years and interest rates will help your wealthy clients decide which loan is right for them to achieve their ultimate goal of saving tax dollars.

In the following activity, you will be using the Payment (PMT) function to compute yacht payments. The Payment function is used to calculate the payment for a loan based on constant payments and a fixed interest rate.

To use the Payment function, you will need values referenced for the following:

Rate   This is the interest rate for the loan.

Nper   This is the total number of payments for the loan.

Pv   This is the preset value, or the total amount that a series of future payments is worth now, also known as the principal.

Yacht Mortgage Calculator

ACTIVITY 50

Excel. ACTIVITY

INPUT DATA

	A	B	C	D	E	F
1	USA Loan Company					
2	Monthly Payment Table					
3						
4	Percentage Rate:		4.00%			
5						
6			Mortgage in Years			
7						
8		10 Years	15 Years	20 Years	25 Years	30 Years
9		X	X	X	X	X
10		12 Pmts a year	12 Pmts a year	12 Pmts a year	12 Pmts a year	12 Pmts a year
11		120	180	240	300	360
12		Payments	Payments	Payments	Payments	Payments
13						
14						
15	Principal	10 Years	15 Years	20 Years	25 Years	30 Years
16	150000					
17	175000					
18	200000					
19	225000					
20	250000					
21	275000					
22	300000					
23	325000					
24	350000					
25	375000					
26	400000					
27	425000					
28	450000					
29	475000					
30	500000					
31	525000					
32	550000					
33	575000					
34	600000					
35	625000					
36	650000					
37	675000					
38	700000					
39	725000					
40	750000					
41	775000					
42	800000					
43	825000					
44	850000					
45	875000					
46	900000					
47	925000					
48	950000					
49	975000					
50	1000000					

51 Car Purchase

Activity Overview

You're almost 16 and thinking about your first car. Your parents are paying for your classroom and road hours, but it's up to you to save for that "dream" car. They will allow you to use their cars for five years. Now, it's up to you to figure out how much you need to save to purchase the car of your dreams.

The following activity illustrates how spreadsheets can be used to create a table, base it on multiple payments for 5 years, and then show what your savings will have at the end of 5 years. To do this, you will be using the Future Value (FV) function. The Future Value function returns the future value of an investment based on periodic constant payments, and a constant interest rate.

To use the Future Value function, you will need values referenced for the following:

Rate   This is the interest rate for the loan.

Nper   This is the total number of payments for the loan.

Pv   This is the present value, or the total amount that a series of future payments is worth now, also known as the principal.

Instructions

1. Create a NEW spreadsheet.

★ *Unless otherwise stated, the font should be 10 point Arial.*

2. Type the data as shown.

3. Bold rows 1 – 8.

4. Right align cells B8 – F28.

5. Change the font size of cell A1 to 16 point.

6. Format the width of columns A – F to 10.0.

NEW SKILL ▶ 7. In cell B10, enter the formula =FV($C$3/12,B$8*12,-$A10)

8. Select cells B10 – F28 and use the AutoFill feature to copy the formula entered in cell B10 to the remaining cells.

9. Format cells A10 – F28 as numbers displaying 2 decimal places.

10. Format cell C3 as percentages displaying 3 decimal places.

11. Insert a header that shows:

    a. Left Section   Activity 51-Student Name

    b. Center Section   CAR PURCHASE

    c. Right Section   Current Date

Car Purchase

12. Insert a footer that shows:

    a. Center Section   PAGE number

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

14. Carefully proofread your work for accuracy.

15. Save the spreadsheet as CAR PURCHASE.

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

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

18. Print Preview and adjust the Page Setup so that the spreadsheet fits on one page.

NEW SKILL ▶ 19. Center the spreadsheet horizontally on the page.

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

INPUT **DATA**

	A	B	C	D	E	F
1	CAR PURCHASE SAVINGS CALCULATOR					
2						
3	Percentage Rate:		4.00%			
4						
5						
6	Savings		Car Savings in Years			
7	per					
8	Month	1	2	3	4	5
9						
10	50					
11	75					
12	100					
13	125					
14	150					
15	175					
16	200					
17	225					
18	250					
19	275					
20	300					
21	325					
22	350					
23	375					
24	400					
25	425					
26	450					
27	475					
28	500					