

Digital Communications 6.01

1. A formula is a simple mathematical equation that is used to calculate spreadsheet values.
2. A copy procedure should be used if five columns of values need something added to each column without having to enter into the spreadsheet five different formulas.
3. A formula or function should be entered into a spreadsheet to automatically add a column of 10 numbers.
4. A computer program that uses rows and columns of data to manage, predict, and present information in software is called spreadsheet.
5. - is the mathematical operator that represents subtraction.
6. A procedure or operation that is built into a spreadsheet program to perform shortcut calculations is called a function.
7. Text, symbols, dates, or numbers not used in calculations are called labels.
8. Rows run horizontally and columns vertically in a spreadsheet.
9. B9 is an example of a cell address.
10. Equations with symbols for math operations such as + and - are called formulas.
11. When using a spreadsheet, the first part of a cell address identifies the location of a column.
12. The column letter followed by the row number is a cell reference.
13. A rectangular group of cells treated as a unit in a spreadsheet is a range.
14. The cell address B6 represents Column B and Row 6.
15. A spreadsheet is software which allows editing of a cell.
16. Budget, payroll, and student grades are good uses of a spreadsheet. A recipe file is not a good use of a spreadsheet.

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1. A / is a mathematical operator which represents division in a spreadsheet formula.
2. To get \$167,389.69, you should use the currency spreadsheet format.
3. The sum function is used to add a range of cells.
4. To format a range of cells in a spreadsheet to the nearest cent, using currency, set the number of decimal places to two.
5. A backspace key should be used to delete text that is to the immediate left of the cursor in a spreadsheet cell.
6. In a spreadsheet, “=B3*C3” is a formula.
7. (A6:A10) is the range in the formula =sum(A6:A10).
8. You should use edit the cell procedure to change the contents of a cell.
9. The default alignment for values in a spreadsheet is right aligned.
10. Left justification is the default alignment for labels on a spreadsheet.
11. In a spreadsheet, a user’s Social Security number is a label.

Advantages of Computer Spreadsheets

Fast and Accurate

Can answer "What Is...?"

Can Answer "What If...?"

Spreadsheets Can Answer What If Questions

- students' current grade (school)
- individual athlete statistics (sports)
- transportation schedules (business)
- current \$ available for spending (personal)
- census results
- student population increases (school)
- win/loss record changes (sports)
- product sales decrease (business)
- hourly wage rate changes (personal)

Examples of Uses of Spreadsheets

School - Student grades, payroll, class sizes, schedules

Sports - Individual and team statistics, current and future budgets

Personal - Checkbook, household expenses, investments, income taxes

Business - Payroll, investments, inventory, product sales, delivery

Government - Taxes, census, loans, investments, budgets

	A	B
1	BIRTHDAY GIFTS	
2		
3	GIFT	COST
4	CD Player	\$48.00
5	Nike Jacket	\$99.75
6	Gap Jeans	\$59.00
7	Computer Game	\$68.50
8	Three CD's	\$31.25
9		
10	Total Cost	\$306.50

Cell (B3)
Intersection of a row and a column

Value
A number entered on a spreadsheet and used for calculations

Label
Text, Symbols, dates, or numbers not used in calculations

Formula
An equation with symbols for math operations
 $B4+B5+B6+B7+B8$

	A	B
1	BIRTHDAY GIFTS	
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Range (B4:B8)
A block of cells

Sum....Adds the range
Average....averages the range

Functions
Shortcut formulas
Sum(B4:b8)

Active Cell — The cell ready for data entry.

Alignment — When data is entered into a cell, the default alignment is labels to the left and values to the right.

Cell — Intersection of a row and column and is identified by a *cell reference*.

Cell range — A selected group of cells that form a rectangle

Cell reference — The column letter and the row number. Example: B12

Column — Identified by letters that appear at the top of the spreadsheet. (Vertical)

Formula — Equations with symbols for math operations. Example =B6+B7+B8+B9

Function — Special formulas that do not use operators to calculate a result. i.e. A shortcut formula. Example: sum(A6:A9)

Label — Text, symbols, dates, or numbers not used in calculations.

Rows — Identified by numbers on the left side of the spreadsheet. (Horizontal)

Spreadsheet — A program that allows you to use rows and columns of data to manage, predict, and present information.

Value — A number entered into a spreadsheet cell that will be used for calculations.

Examples of Labels and Values

\$12,400.60	<u>Value</u>
. 1 Main Street	<u>Label</u>
. 12%	<u>Value</u>
. Column headings	<u>Label</u>
. Commission times rate	<u>Formula</u>
. The sum of the range B2-B20	<u>Function</u>
. The total of expenses	<u>Value</u>
=AVERAGE(A6:A10)	<u>Function</u>
27525 (Zip Code)	<u>Label</u>
45	<u>Value</u>
494-2885	<u>Label</u>
B2*C6	<u>Formula</u>
NAME	<u>Label</u>
NUMBER	<u>Label</u>
Social Security Number	<u>Label</u>

Examples of Formulas and Functions

Multiply B3 times B5. =B3*B5

Add H2 and H13. =H2+H13

Subtract E14 from E13. =E13-E14 ****

Divide A3 by C1. =A3/C1

Add the range F12-F22. =sum(F12:F22)

Add C16 through C20 then subtract C5. =sum(C16:C20)-C5

Add A23 and A24 then divide by C10. =(A23+A24)/C10

Find the average of G1through G10. =average(G1:G10)

Find the net income of the income amounts that are located in B2 through B4 and the expenses that are in B7 through B12. =sum(B2:B4)-sum(B7:B12)

Find the commission if total sales are in E12 and the commission rate is in B4.
=E12*B4

Note: Function names may change depending on software being used.

Four Basic Calculations

Add	+	A1+B1
Subtract	-	C3-D4
Multiply	*	B6*A2
Divide	/	F1/F3

Order of Operations

You can also use parenthesis in your calculations where the order of operations is completed first:

Example:
 (A1+A2)*(B7/D4)
 (7+11)*(4/2)
 18*2
 36

Functions

- SUM function will add all numbers in a range**
- AVERAGE (avg) function averages all numbers in a range**
- COUNT will count the numbers in a range**
- MAX will find the largest number in a range**
- MIN will find the smallest number in a range**