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COMPUTER STUDIES  
NOTES  
FORM 2

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## Components of a Spread Sheet

Nearly every part of the spreadsheet has its own defining term and it is quite useful to know your spreadsheet vocabulary to make using Excel easier. There are three basic parts of an

*Excel Spreadsheet:*  
*Worksheet*  
*Databases*  
*Graphs*

It comprises columns and rows as shown below.

Refer to vertical segments on the spreadsheet. The illustration below shows column A

### Excel uses letters to represent columns

#### Rows

The horizontal segments, that run left-to-right, are referred to as rows. The illustration below shows row one.

Excel uses numbers to represent rows.

#### Cell

The intersection between a row and column is referred to as a cell. The illustration below shows a cell. The first cell, where column A and row 1 intersect is referred to as A1. Here's a picture of Cell A1:

#### Database

#### Graph

Is a pictorial representation of a worksheet.

### Creating a Worksheet

You can create a worksheet by entering data in the cells of the current worksheet. Alternatively, you can create a worksheet either using the general format or from a specially preformatted spreadsheet document called a template.

Starting Microsoft Excel  
Application areas of a Spreadsheet  
Statistical Analysis

You can use a set of data analysis tools to develop complex statistics. Examples of some simple statistical functions that you can carry out are average and median. You can use average to calculate the mean of a set of values and median to determine the value in the middle of a set of values. Using statistical analysis, find the average and median of the following values:

50, 60, 70, 80, 90, 100.

The average and median of these set of values are both 75.

### Accounting

Spreadsheets provide inbuilt functions that make accounting easier. You can use spreadsheets to do the following:

Prepare functions

Calculate profits  
Track the value of assets over time.

An accountant can use formulae such as sum, average, and product, to make his/her work easier. You can arrange your data into a tabular structure in different ways. You can key in related data on the same worksheet and you can also link data on different worksheets to enhance accessibility. Data management functions include sorting, filtering and using forms to enter and view records. You can create, edit, save, retrieve and print worksheet data and records.

### Forecasting

Worksheets provide the automatic recalculation feature that enables the use of 'what if' analysis technique. This involves changing the value of one of the arguments in a formula to see the effect the change would make on the calculation. For example, calculating profits at various sales of different kilograms of tomatoes from your school garden. Thus, if one kilogram of tomatoes sells for KSHs. 80, then 2kilograms will sell for KSHs. 160.  
Using Operators

### Mathematical Functions

A function is a preset formula in Excel. unlike formulas, functions begin with the equal sign ( = ) followed by the function's name and its arguments. The function name tells Excel what calculation to perform. The arguments are contained inside round brackets.  
For example, the most used function in Excel is the SUM function, which is used to add together the data in selected cells. To add data in cells D1 and D6, the SUM function is written as = SUM (D1: D6)

Addition Function  
Division Function  
Autosum Function  
Automatic calculation Function  
Using the IF Function  
Using the Count IF Function

### Using the Sum IF Function

Today, you can use computerised special programs called database management systems to manage data more conveniently.

In real life situations, information on;

- i.) Students records
- ii.) Patient records in hospitals
- iii.) Employee records
- iv.) Stock in a supermarkets among others is manually stored in books, papers, and files.

Similarly, computers can be used to store;

- (i) patient records in hospitals
- (ii) stock details in supermarkets and
- (iii) employee details in an organization.

Information saved in a computer is safer and economical.

Advanced Research Projects Agency, (ARPA)

In 1969, an agency of the department of defense in the USA, Advanced Research Projects Agency, (ARPA) which was responsible for research and technological development or military problems became interested in developing a way for computers to communicate with each other and began to fund

programs at universities and corporations, given the name ARPAnet.

### **The World Wide Web**

During the late 1980s, the introduction of the World Wide Web and the lifting of government restrictions on Internet usage meant that the Internet could be used by the public by the early 1990s.

### **The Internet Today**

Today, the primary challenge that the Internet faces is to create enough capacity to accommodate increases in traffic.

Prior to the widespread inter-networking that led to the Internet, most communication networks were limited by their nature to only allow communications between the stations on the network, and the prevalent computer networking method was based on the central mainframe method.

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