

Good Morning Students,

Students, this lesson is for class VIII, for the subject of computers. Topic is 'Circular Reference' which is covered in chapter - 2, starting on page no. 22, given in your text book titled 'logix 8' and is being submitted to you on 01.5.2023

So, I hope all the students are ready for today's lesson. Children, in previous assignments of spreadsheet you have learnt about the cell references and its types. Today we will learn about circular reference and will come to know how to use references.

→ Circular Reference :- A formula in a cell that directly or indirectly refers to its own cell value is called as circular reference. For example, if we are entering the the formula in A2 cell that is column A and Row 2. If we enter $A1 + A2 + A3$ in cell A2, we are making the formula to refer to its own cell value, which is not possible. It will show a warning message on the screen as 'Circular Reference Warning', that shows that one or more formulas contain a circular reference and may not calculate correctly.

Children, our next topic is 'Cell Reference of Another Worksheet'. We can use the cell reference of one worksheet in another worksheet by using steps given below :-

1. Using Copy-Paste option :- Open MS-Excel sheet and enter data in two different worksheet as Sheet 1 and Sheet 2. Now after entering data we want to use same formula in both the sheets then you first write or use formula in one sheet and then copy the formula and paste it in another sheet. For copying you can use shortcut key as $Ctrl + C$ and for pasting $Ctrl + V$.

2. Using sheet reference :- Children, for using the sheet reference, we use sheet number, exclamation mark and cell address. For example Sheet 1!D2. Kindly refer the fig. 2.12 given on page no. 23 of your textbook.

Children, next we will discuss about the errors of formulas used in Excel. If any formula is entered incorrectly then Excel displays an error message as shown below :-

1. ##### Error :- This error occurs if the column is not having enough space to accommodate the value.

2. # Value Error :- It occurs if the formula contains invalid data.
3. # Name ? Error :- It occurs if the formula is used incorrectly.
4. # Div/0! Error :- If the number is divided by zero, this error occurs.

Children, our next topic is 'Functions'. As we know that functions are the predesigned Formulas in Excel to perform both simple and complex calculations. Functions begin with = sign. There are certain rules to enter a Function as discussed below.

1. All Excel functions must begin with = sign.
2. Function name must be a valid Excel name.
3. Function name must be followed by an opening and closing brackets.
4. Arguments, which includes the range of cells are enclosed in the brackets.

Children there are few Common Functions used in Excel.

1. AutoSum() → It is the fastest way to find out the total of the given numbers.
2. Average() → This function is used to find the average of the given numbers.

3. MAX():- This function is used to find the largest value in the given range.

Children, next we will discuss how to manage worksheet.

1. Renaming a Worksheet :- You can easily rename the worksheet by right clicking on the sheet name, after that the option will appear as 'Rename'. Enter new name and press Enter key.

2. Deleting a Worksheet :- If you don't require any sheet or worksheet, then right click on the sheet, you will get the option 'Delete'.

3. Changing colour of a sheet tab :- To change the colour of the sheet tab, right click on the sheet tab and from there you will get the option 'Tab colour', select any colour from the displayed choices.

Students, I am ending the lesson here. Kindly try to attempt part A, B and D given on page no. 28 and 29 of your textbook.