



INTERNATIONAL COLLEGE  
**SUAN SUNANDHA** RAJABHAT UNIVERSITY  
<https://ssruic.ssu.ac.th>

# Spreadsheet

## (Microsoft Excel)

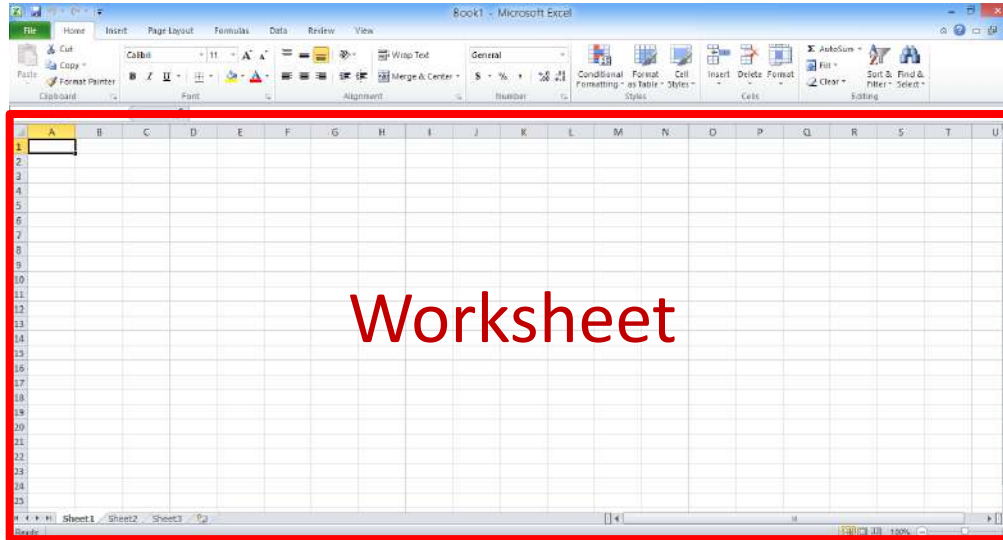
Pongrapee Kaewsaiha



# Definition



# Spreadsheet



**Worksheet**

**Spreadable**

**Columns: A – Z, AA,...**

**Spreadable**

**Rows: 1, 2, 3,...**

**Max: 1,048,576 rows x 16,384 columns**

(Office 365, as of Aug 2020)



# Spreadsheets

Microsoft Excel is one of the spreadsheet programs available.



Excel

(Microsoft)



Numbers

(Apple)



Calc

(LibreOffice)



Sheets

(Google)  
(Cloud App)

...

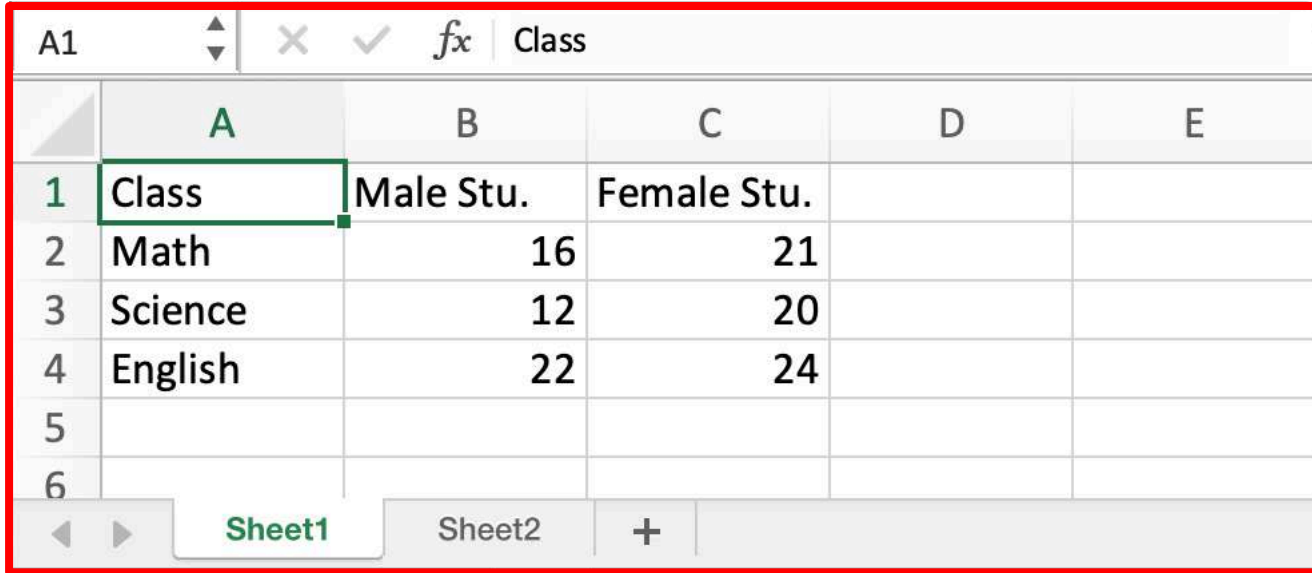




# Spreadsheet Structure



# Spreadsheet Structure

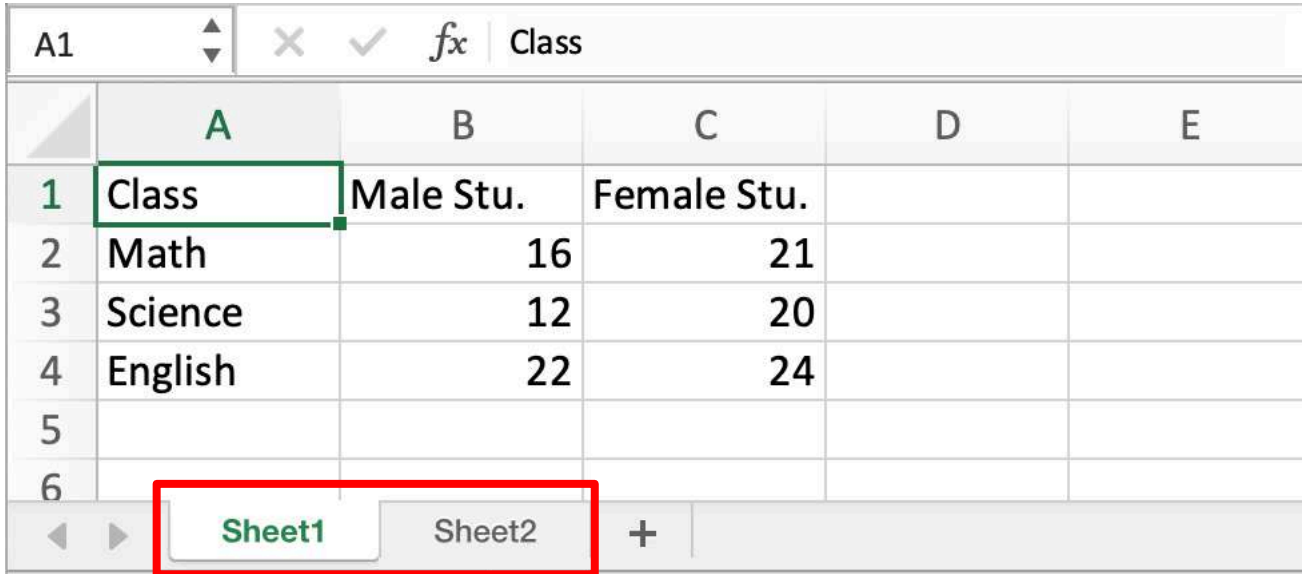


	A	B	C	D	E
1	Class	Male Stu.	Female Stu.		
2	Math	16	21		
3	Science	12	20		
4	English	22	24		
5					
6					

An Excel file (.xlsx) is called a “**workbook**”.



# Spreadsheet Structure



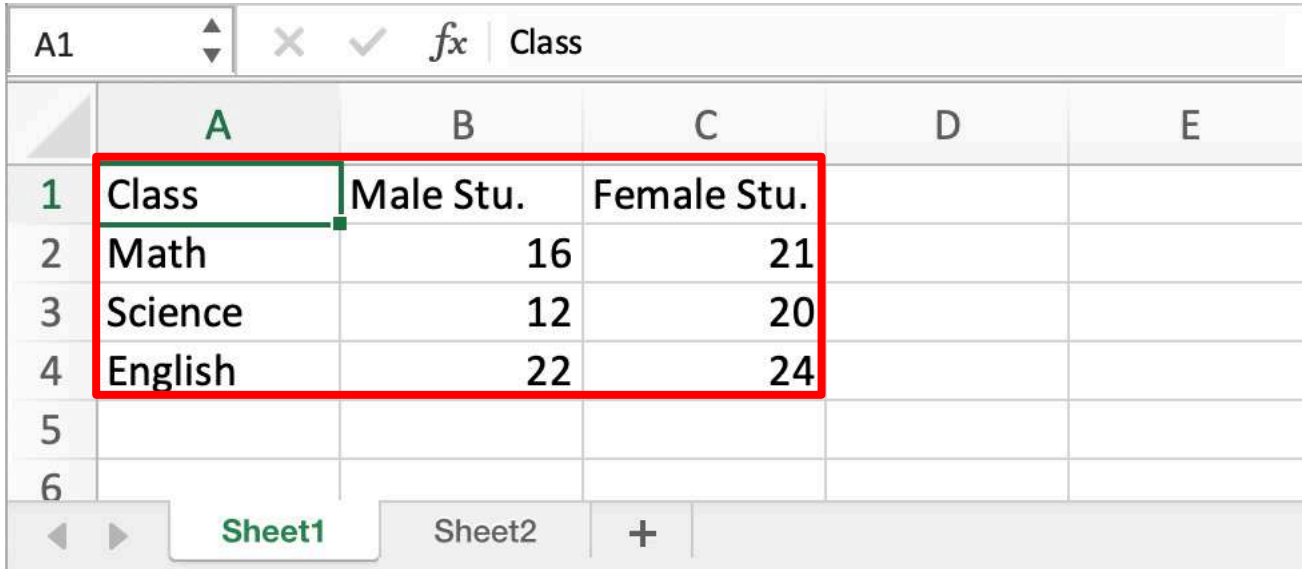
	A	B	C	D	E
1	Class	Male Stu.	Female Stu.		
2	Math	16	21		
3	Science	12	20		
4	English	22	24		
5					
6					

In the workbook, there can be multiple “**worksheets**” or “**sheets**”.

(There are two sheets in this workbook.)



# Spreadsheet Structure






	A	B	C	D	E
1	Class	Male Stu.	Female Stu.		
2	Math	16	21		
3	Science	12	20		
4	English	22	24		
5					
6					

On each sheet, there can be “**tables**”.  
(There is only one table on this sheet.)





# Spreadsheet Structure



	A	B	C	D	E
1	Class	Male Stu.	Female Stu.		
2	Math	16	21		
3	Science	12	20		
4	English	22	24		
5					
6					

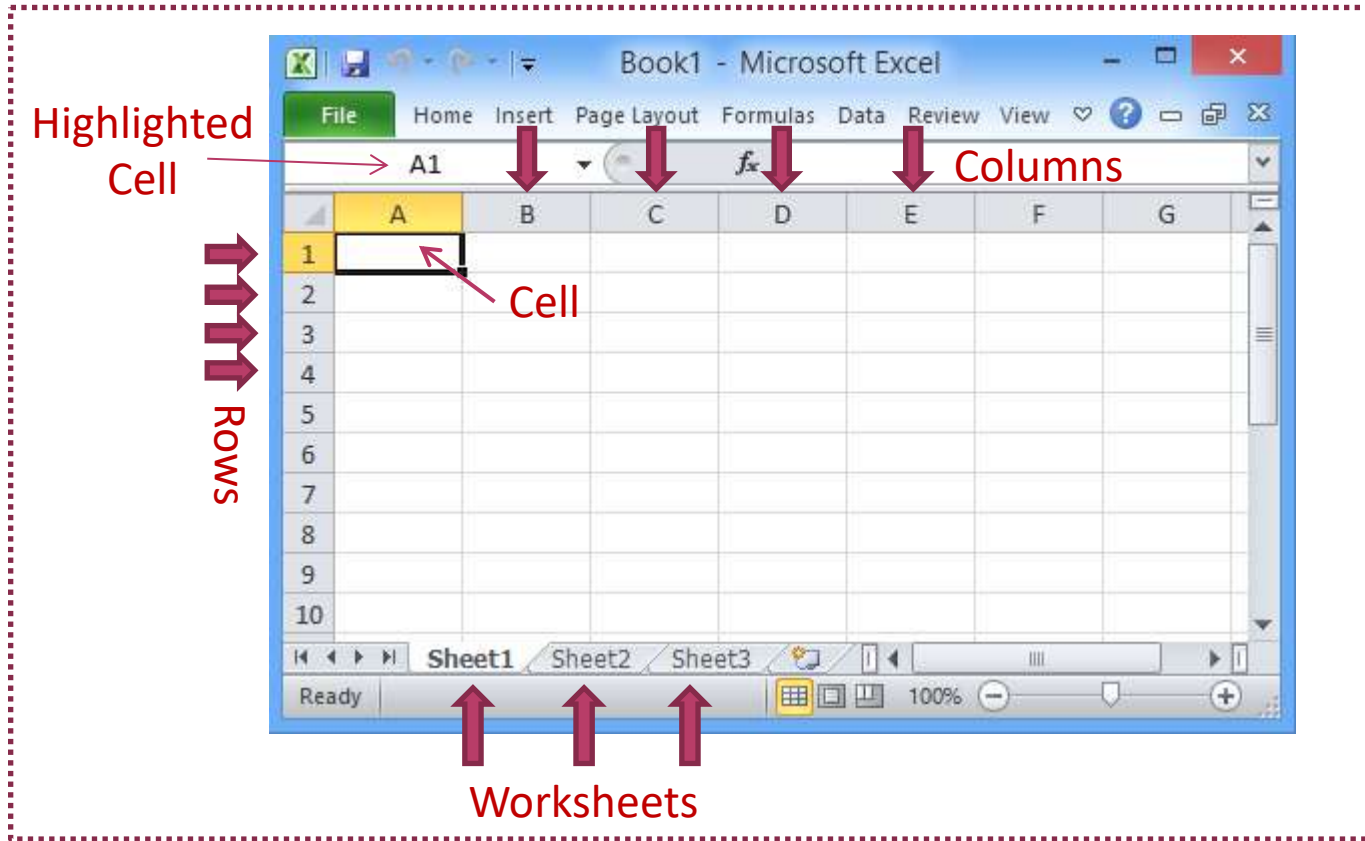
Sheet1 Sheet2 +

Individual blocks on a sheet are called “**cells**”.

Each cell is identified by its row and column.



# Spreadsheet Structure



Workbook  
(File)



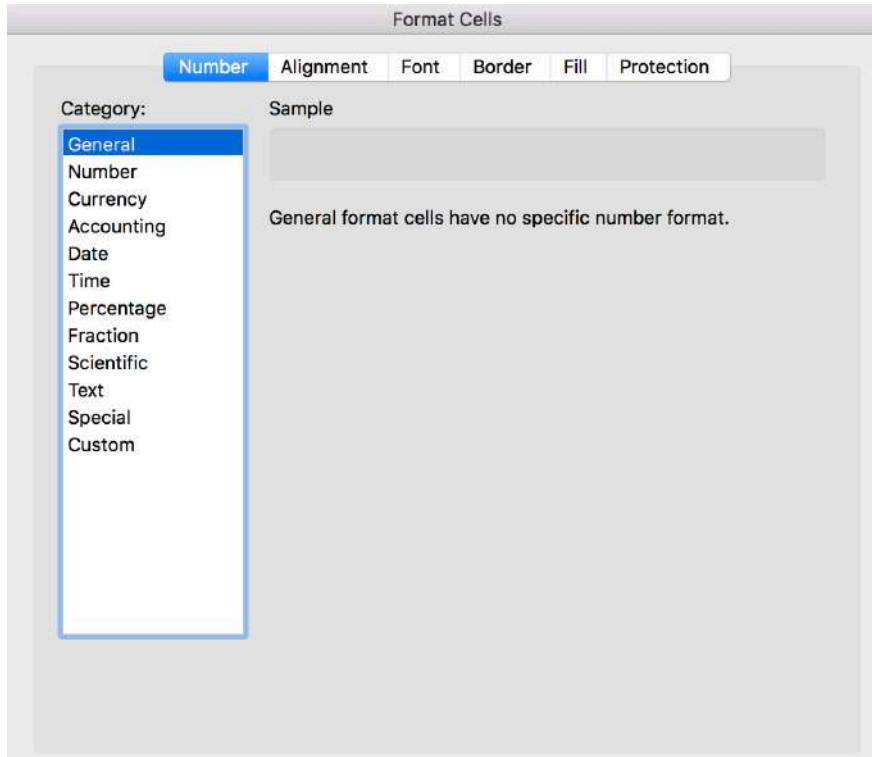


# Data Types (Cell Formats)

See the “Data Types” sheet for better understanding.



# General



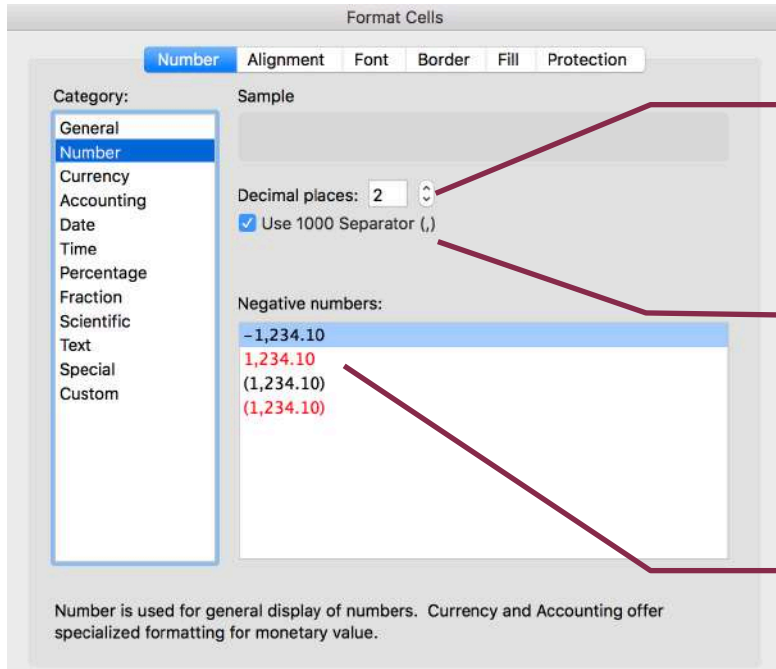
“General” is the default cell format. The data type will be changed automatically based on the data you enter.

## Example:

- **0023** will become 23 (*number*)
- **A01** will be saved as “*Text*”
- **1 July 2018** will be changed to the default date format, probably 7-1-18.



# Number



Choose how many decimal places to display.  
The number will be rounded mathematically.

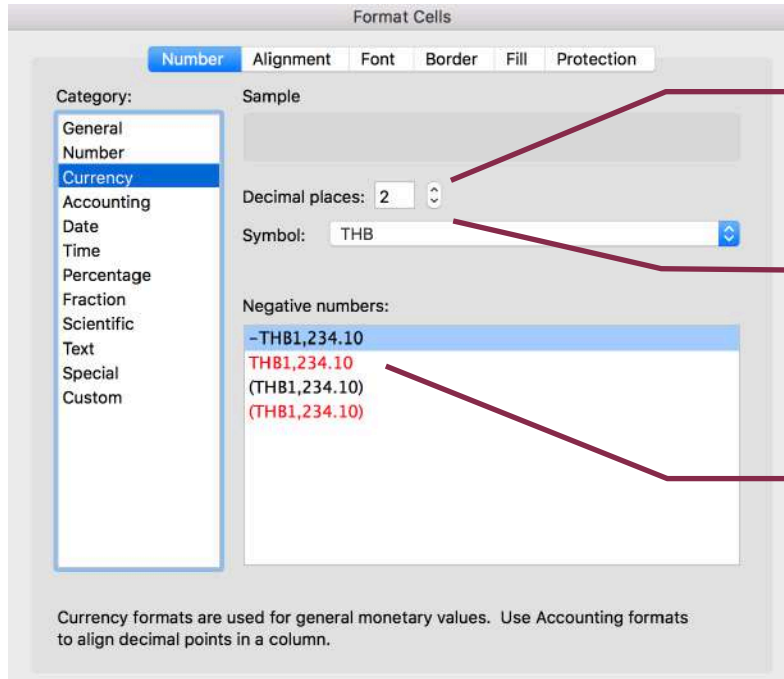
Select to display thousand separators.  
**\*\* DO NOT type a thousand separator manually in Excel \*\***

Choose how to display a negative number.  
**\*\* Remember that a number in brackets has a negative value \*\***

**\*\* A non-zero number cannot begin with zero. Example: 0023 will be displayed as 23.**



# Currency/Accounting



Choose how many decimal places to display.  
The number will be rounded mathematically.

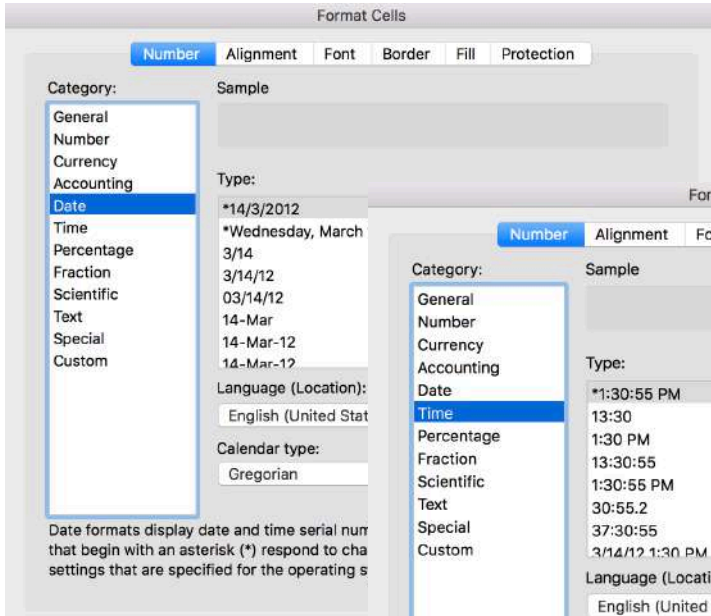
Choose a currency unit to display.  
**\*\* DO NOT type a currency unit manually \*\***

Choose how to display a negative number.  
**\*\* Remember that a number in brackets has a negative value \*\***

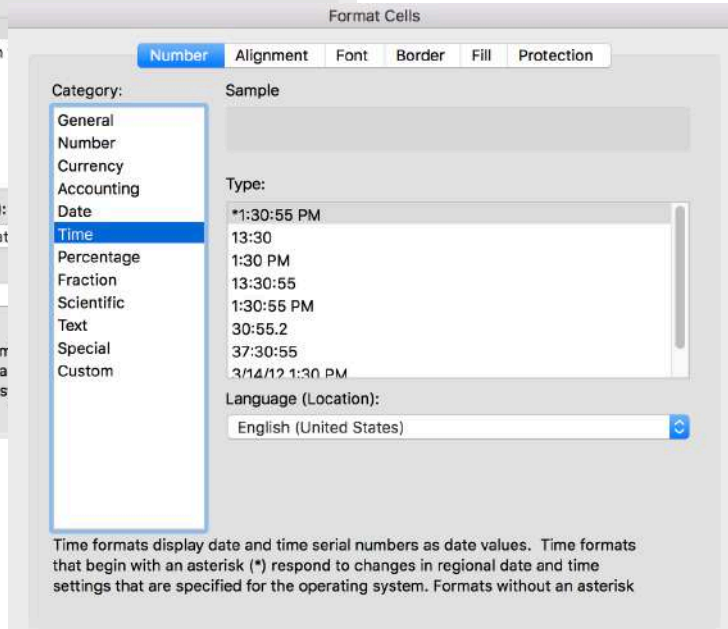


Use the accounting format to align currency symbols and decimal points.

# Date/Time



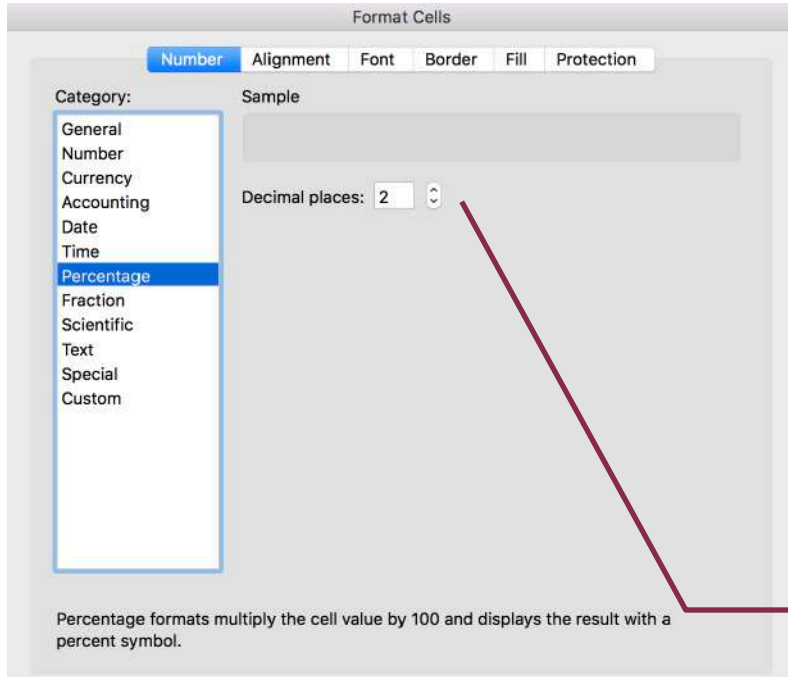
Display date and time based on the actual calendar. Data will be calculated as follow:



- 1 min = 60 secs
- 1 hr = 60 mins
- 1 day = 24 hrs
- Day changes at 0.00 AM
- 1 month = 28, 29, 30, or 31 days depending on the month
- 1 year = 365 or 366 days depending on the year



# Percentage



Multiply the cell value with 100 and display the result with a percent (%) symbol.

**Example:** 0.15 will be displayed as 15%

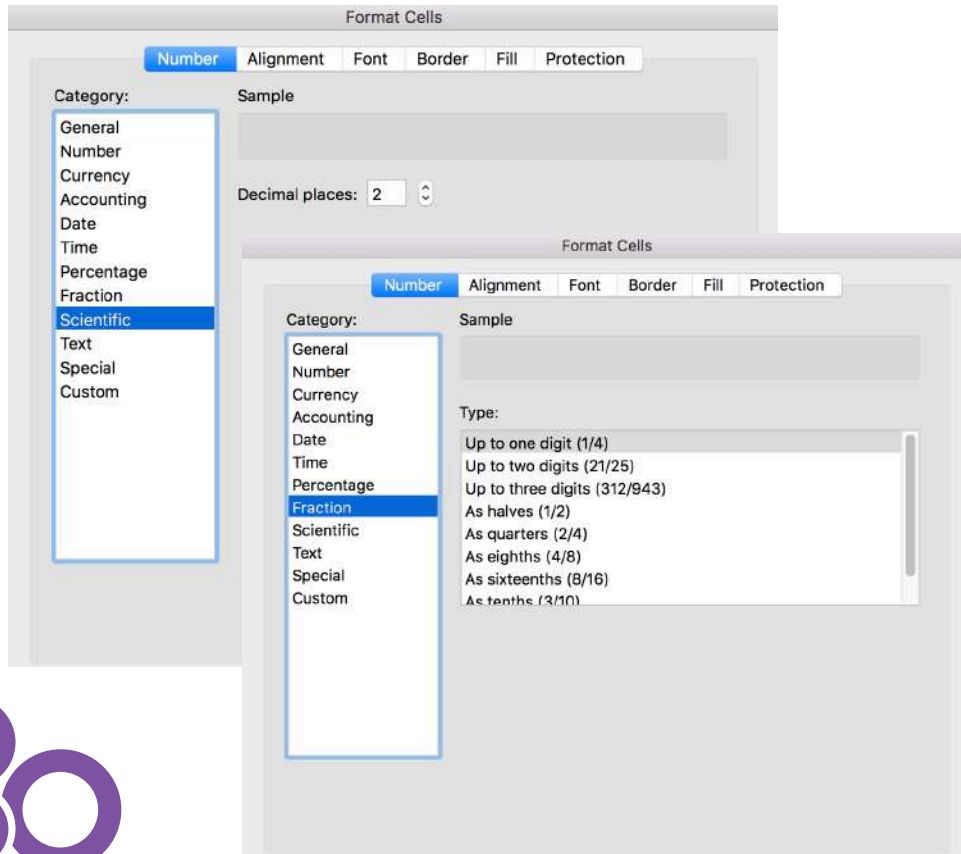
**\*\* DO NOT type a percent symbol manually \*\***

Choose how many decimal places to display.  
The number will be rounded mathematically.





# Fraction/Scientific

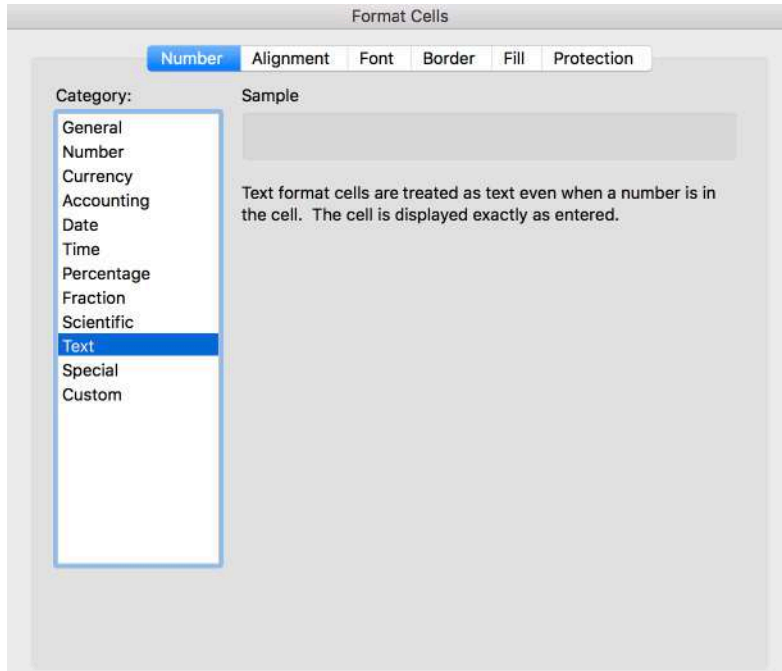


## Examples:

- 0.3 will be displayed as  $\frac{2}{7}$
- 100 will be displayed as  $1.00E+02$  which means  $1 \times 10^2$
- 0.001 will be displayed as  $1.00E-03$  which means  $1 \times 10^{-3}$



# Text



An alphanumeric with no numerical value.  
The data will be displayed as it was typed.

## Number

- Price
- Amount
- Height
- Weight
- Length
- ...

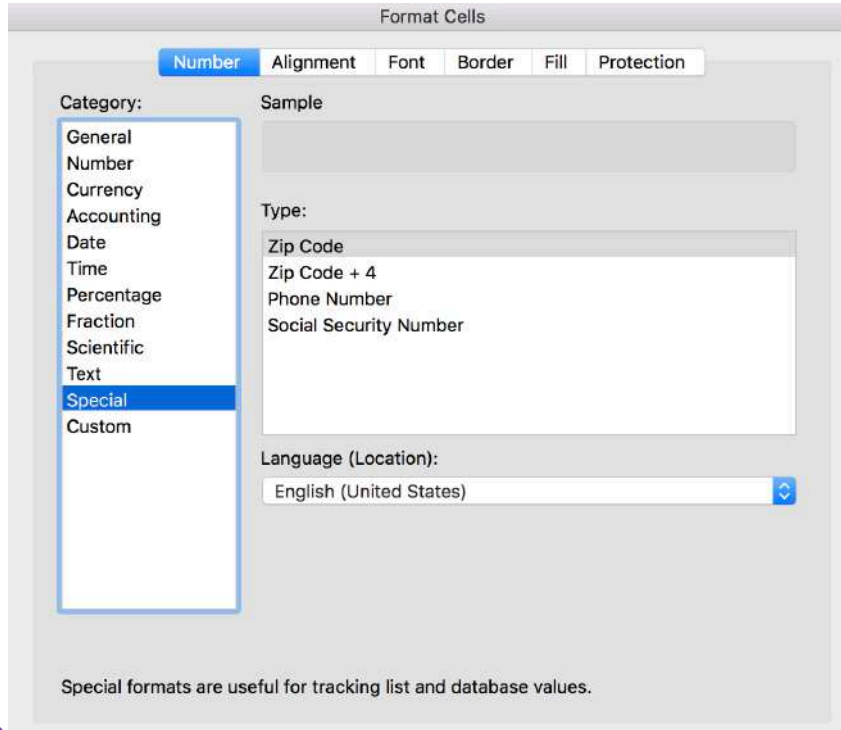
## Text

- Product ID
- Citizen ID
- Student ID
- Phone number
- Password
- ...

A student number (e.g. 60123455125) does **not** have numerical value.



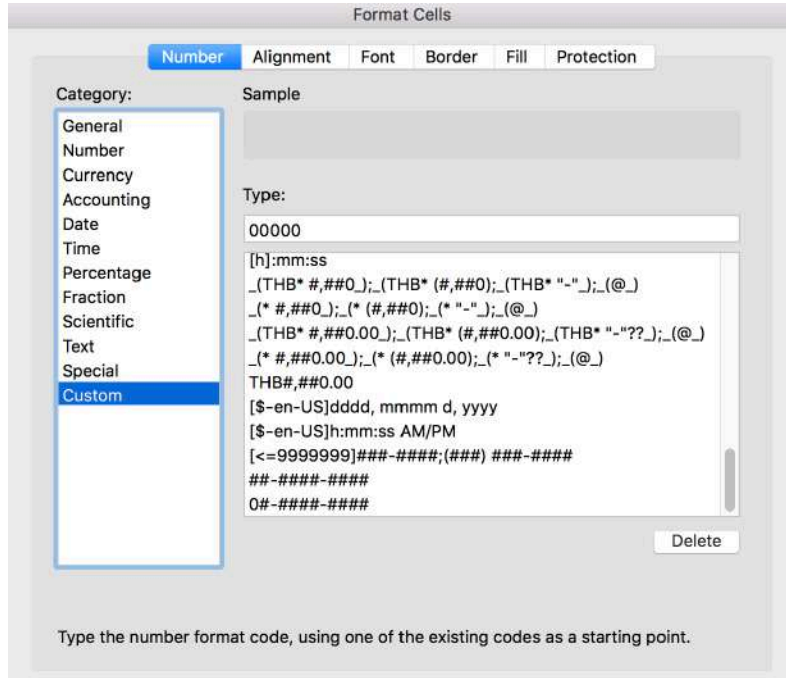
# Special



e.g. Zip Code & Phone Number



# Custom



A customizable input format.

**Example:** Thai mobile number

**0#-####-####**

