

Excel Data

types, checking, and conversions

Four Main Data Types in Excel

- Number
- Text
- Date
- Logical

Number – 100, 2.5, 892.407

Text – red, Joshua, Florida

Dates – 2008-02-08, 1986-09-10, 2020-02-11

Logical – TRUE, TRUE, FALSE

ISLOGICAL()

The screenshot displays the Microsoft Excel interface with the following details:

- Title Bar:** Shows the file name "2018_Central_Park_Squirrel_Census_-_Squirrel_Data".
- Ribbon:** The "Formulas" tab is active, showing options like Paste, Cut, Copy, Format, and various calculation functions.
- Formula Bar:** Displays the formula "=ISLOGICAL(P2)".
- Spreadsheet Data:**

Name Box	F	I	J	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AF
	Date	Age	Primary Fur	Highlight Fur Color	Specific Location	Running	Chasing	Climbing	Eating	Foraging	Other Activities	Kuks	Quaas	Moans	Tail flags	Tail twitches	Approaches	Indifferent	Runs from	Other Interactions
1	10142018					FALSE	FALSE	FALSE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
2	10142018	Adult	Gray	Cinnamon		TRUE	FALSE	FALSE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
3	10102018	Adult	Gray	Cinnamon		FALSE	FALSE	TRUE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE	
4	10182018	Juvenile	Gray			FALSE	FALSE	TRUE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	
5	10182018					FALSE	FALSE	FALSE	FALSE	FALSE	unknown	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
6	10192018	Juvenile	Gray	Cinnamon		FALSE	FALSE	FALSE	FALSE	FALSE	wrestling with mother	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	
- Annotations:** Two green arrows originate from the formula bar. One points to cell P2 (containing "FALSE"), and the other points to cell AF2 (containing "TRUE").

Converting data types

Text → Number

N()

Logical → Number

N()

Number → Percentage

TO_PERCENT()

For some format transformations,
using Format Cells is the best
option! Lots of data categories

Rounding data

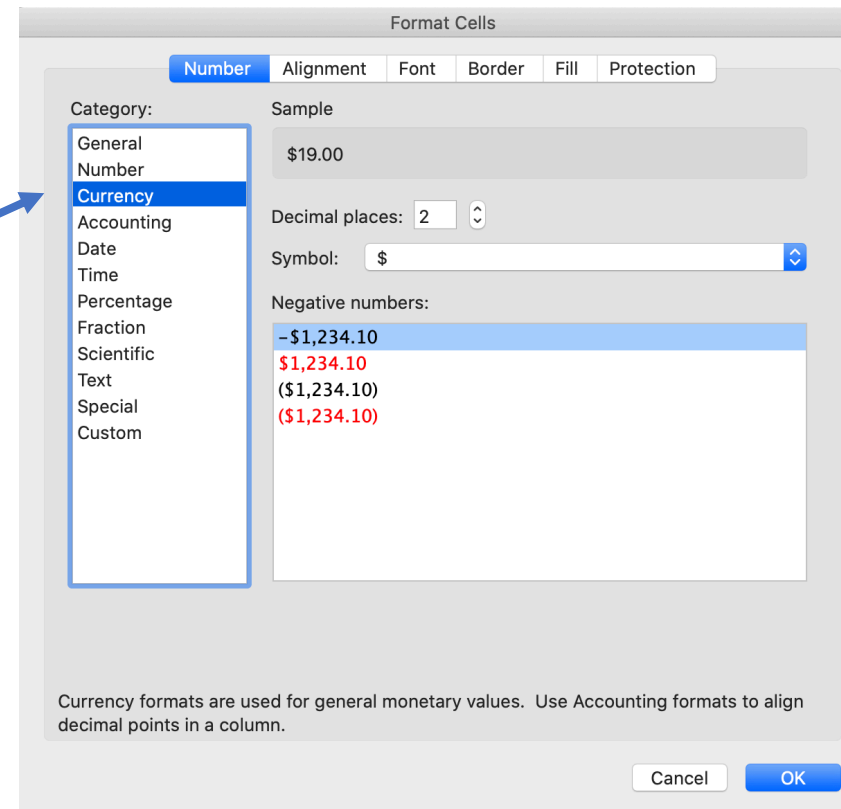
In addition to ROUND()

FLOOR(<value to round down>, <significant multiple>)

FLOOR(2.24, 0.25) → 2.00

CEILING(<value to round up>, significant multiple)

CEILING(24697, 100) → 24700



CONVERT() Function

Syntax: CONVERT(**value**, **from_measurement**, to_measurement)

CONVERT(**22**, **"C"**, **"F"**) will convert 22 from degrees Celsius to degrees Fahrenheit

CONVERT(**100**, **"yd"**, **"m"**) will convert 100 from yards to meters

The list of from/to measurements is extensive and can be found at <https://exceljet.net/excel-functions/excel-convert-function>

Exercises

1. Insert a column to the right of the **age** column. Call it **age_is_number**? Write a formula to check whether the value in the **age** column is a number.
2. Insert a column to the right of the **height** column in the Star Wars dataset. Call this **height_inches**. Write a formula in the new column to convert **height** from centimeters to inches. Round it to the nearest whole number.
3. Insert a column to the right of the mass column. Call the new column weight. Write a formula to convert the mass column from kilograms to pounds. Round this to the nearest whole number. What is Jabba the Hutt's weight in pounds?