Excel Data

types, checking, and conversions

Four Main Data Types in Excel

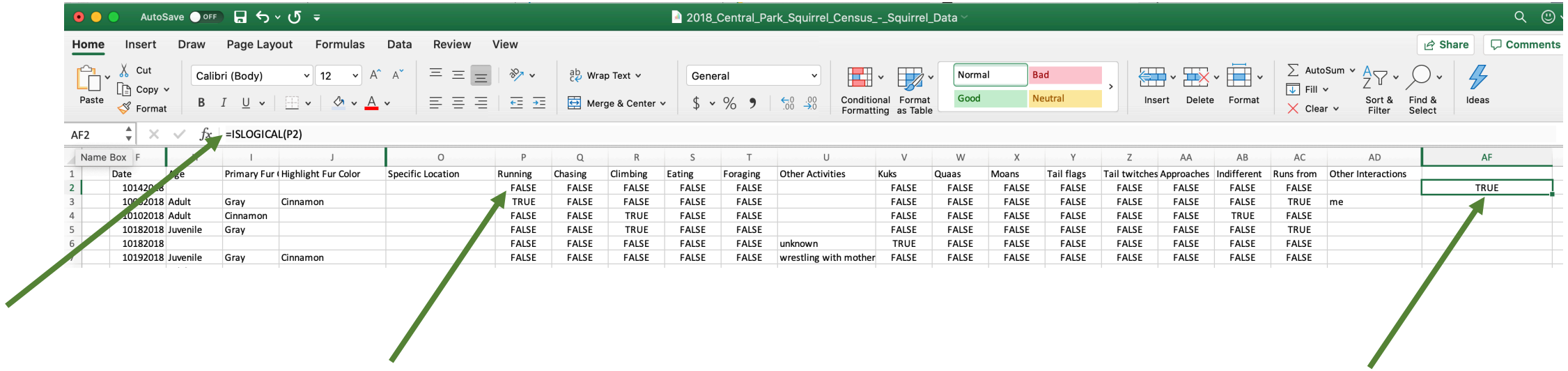
- Number
- Text
- Date
- Logical

Number – 100, 2.5, 892.407
Text – red, Joshua, Florida
Dates – 2008-02-08, 1986-09-10, 2020-02-11
Logical – TRUE, TRUE, FALSE

You can check the type of data in a cell using

ISNUMBER()
ISTEXT()
ISDATE() – not available in Excel
ISLOGICAL()

You can check whether the value in **P2** is just text that says **FALSE** or an actual logical data type.



	Date	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	AF
2	10142018				FALSE	FALSE	FALSE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE		TRUE
3	10092018	Adult	Gray	Cinnamon	TRUE	FALSE	FALSE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	me	
4	10102018	Adult	Cinnamon		FALSE	FALSE	TRUE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE	FALSE		
5	10182018	Juvenile	Gray		FALSE	FALSE	TRUE	FALSE	FALSE		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE		
6	10182018				FALSE	FALSE	FALSE	FALSE	FALSE	unknown	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE		
7	10192018	Juvenile	Gray	Cinnamon	FALSE	FALSE	FALSE	FALSE	FALSE	wrestling with mother	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE		

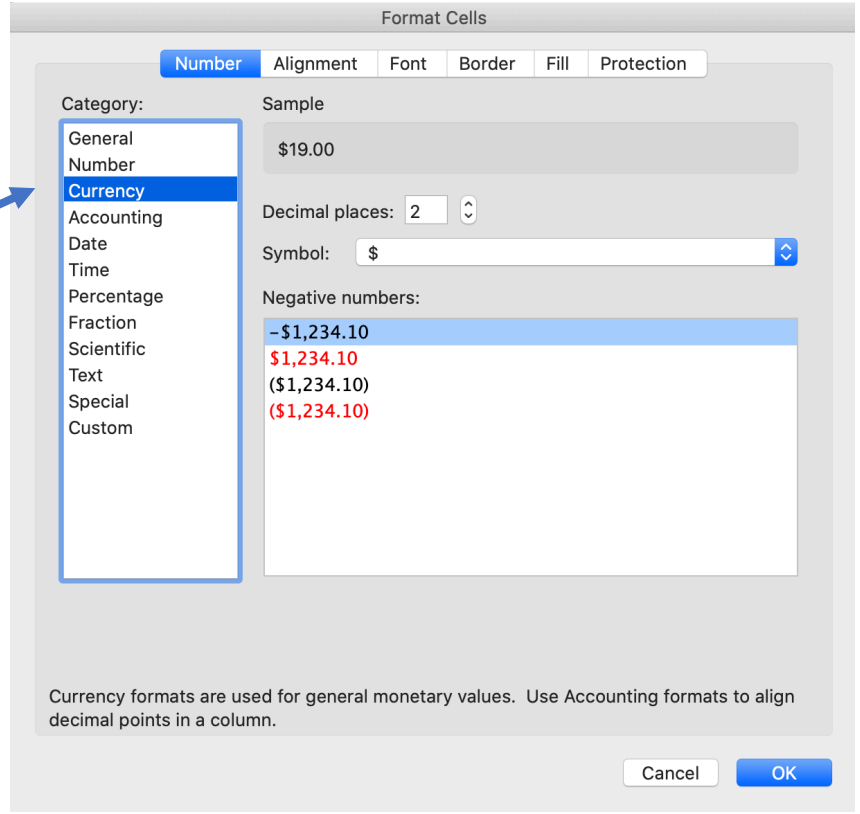
Converting data types

Text → Number
N()
Logical → Number
N()
Number → Percentage
TO_PERCENT()

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

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



CONVERT() Function

Syntax: CONVERT(value, from_measurement, to_measurement)

CONVERT(22, "C", "F") will convert 22 from degrees Celsius to degrees Farenheit
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 in the Star Wars dataset. 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?**