



# Learning Objectives

Create a trace table to  
demonstrate how an  
algorithm works

# Trace tables

- Tracing is a method of using data to check how an algorithm works.
- Using a trace table allows us to test algorithms to make sure there are no *logic errors* in our programming.
- Each column contains a variable used in the program.
- The row displays the numerical value of that variable.
- Use the first row for declared variables/input data
- Each time a while/for loop is iterated through, use a separate row

# Setting up the trace table

- Start by setting up columns for each variable in the program and the last column is the output in your program

1. `x = 8`
2. `y = 5`
3. `WHILE x > y`
4. `x = x + 1`
5. `y = y + x`
6. `print(x,y)`

x	y	Output
8	5	
9	14	9,14

14 > 9 so  
we break from  
the while loop