

Learning Objectives

Create a trace table to demonstrate how an algorithms 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