ME1 Computing

Provide feedback (anonymously) at:

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with code **63 53 77**

A tuple is a sequence of elements

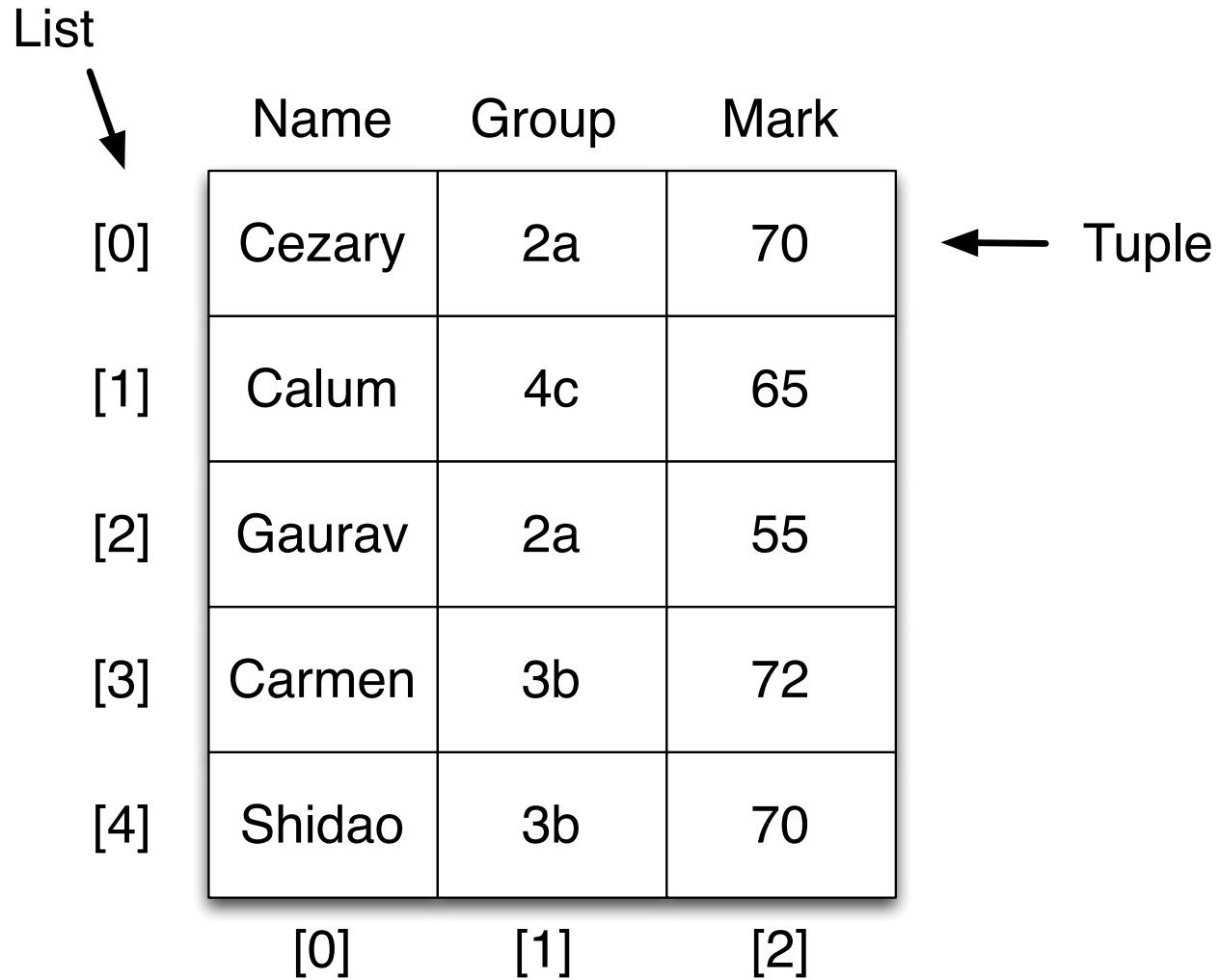| Name	Group	Mark
Cezary	2a	70

← Tuple

[0] [1] [2]

Lists are MUTABLE

Tuples are IMMUTABLE

List of tuples

List

	Name	Group	Mark
[0]	Cezary	2a	70
[1]	Calum	4c	65
[2]	Gaurav	2a	55
[3]	Carmen	3b	72
[4]	Shidao	3b	70
	[0]	[1]	[2]

Tuple

Tuples containing lists

PT	Num	Tutees
Fred	4	Paul, Orsina, Isabel, Charlie

Tuples containing lists

List

	PT	Num	Tutees
[0]	Fred	4	Paul, Orsina, Isabel, Charlie
[1]	Maria	3	Tony, Charlotte, Zenghli
[2]	Mike	0	
[3]	Julie	1	Pasquale
[4]	Soraia	3	Will, Nicole, Serena
	[0]	[1]	[2]

Nested loops

start from first N

evaluate y(x) for all x

count this N, and go into the next one

for a given N

evaluate y(x_p) with all the terms

count this x_p

for a given x_p

add an extra term to y(x_p)

count this term, up to N
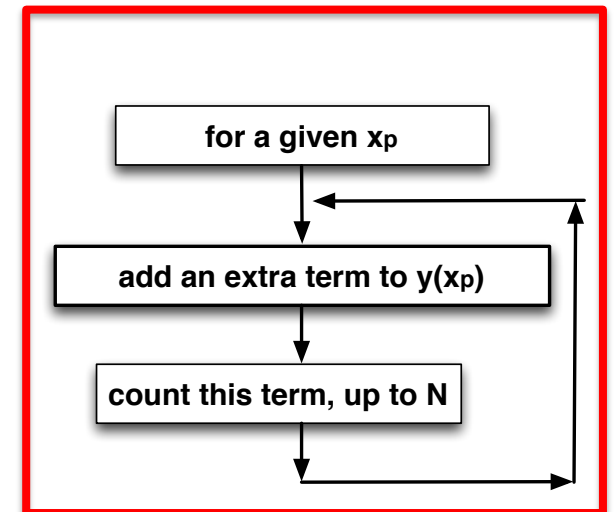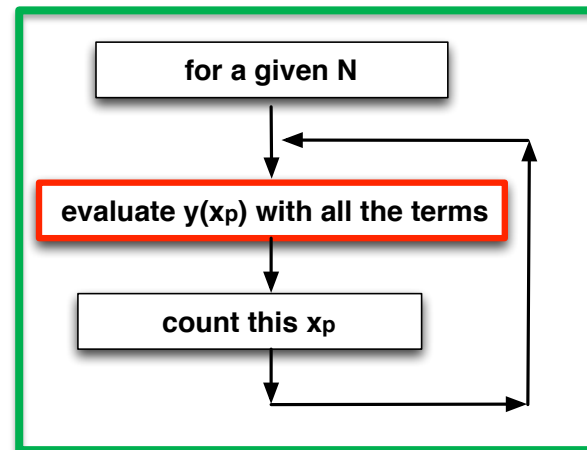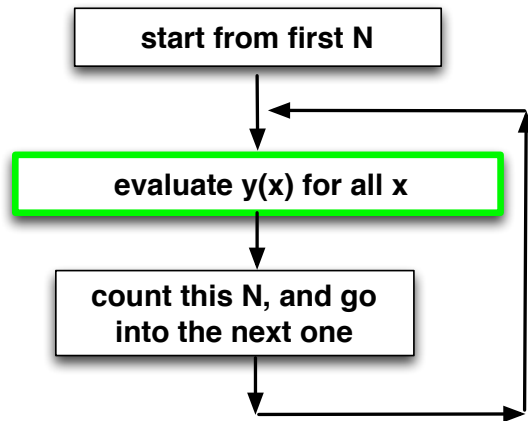
The Sorting algorithm

	0	1	2	3	4	5	6	7	8	9
A	5	8	1	5	7	6	9	3	4	2

Fix k = 0

A	5	8	1	5	7	6	9	3	4	2

k = 0

m = 1 to 9
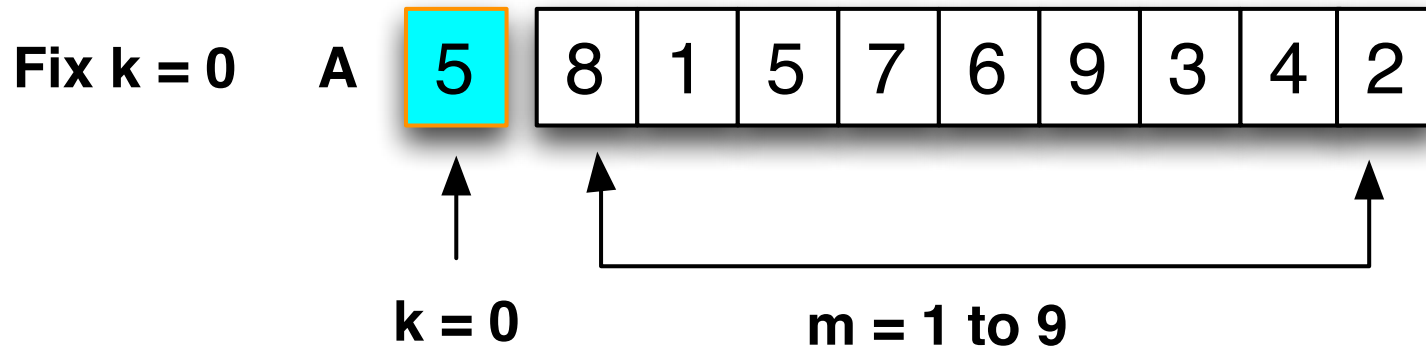
A	1	8	5	5	7	6	9	3	4	2

The Sorting algorithm

0 1   2 3 4 5 6 7 8 9

Fix k = 1   A | 1 | 8 | 5 | 5 | 7 | 6 | 9 | 3 | 4 | 2 |

k = 1   m = 2 to 9

A | 1 | 2 | 8 | 5 | 7 | 6 | 9 | 5 | 4 | 3 |

0 1 2   3 4 5 6 7 8 9

Fix k = 2   A | 1 | 2 | 8 | 5 | 7 | 6 | 9 | 5 | 4 | 3 |

k = 2   m = 3 to 9

A | 1 | 2 | 3 | 8 | 7 | 6 | 9 | 5 | 5 | 4 |