

5.2 Using Arrays

Const MAX := 100

Var marks: array 0..^{MAX}~~100~~ of int

marks(0) := 0

marks(1) := 0

⋮

marks(~~100~~^{MAX}) := 0

for i: 0..^{MAX}~~100~~
marks(i) := 0
end for

Var report: int

put "Enter mark"

get report

marks(report) := marks(report) + 1

← user enters 98

	0	1	2	3				50				98	99	100
marks	0	0	0	0	0			0				0	0	0

for i: 0..~~100~~

put "The number of students who got " i, " was", marks(i)

end for

Var x: array 1..4 of int := init(10, 20, 30, 40)

x

1	2	3	4
10	20	30	40

put marks(2) + 2 → 22
20 + 2 = 22

put marks(2 + 2) → 40
marks(4) = 40

Var m: int := 4

put marks(2) + marks(3) → 50
20 + 30

put marks(m - 1) → 30
marks(4 - 1) = marks(3) = 30

put marks(marks(1) - 7) → 30
marks(10 - 7) = marks(3) = 30

Suppose we want to store 5 values and
 find a) the mean (average) of the values
 b) the largest value

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var values: array 1..5 of int := init(2, 6, 4, 4, 0)
var sum: int := 0
var largest: int := values(1)
for i: 2..5
  if values(i) > largest then
    largest := values(i)
  end if
end for
put "The largest value was ", largest

for i: 1..5
  sum := sum + values(i)
end for
put "The mean is ", sum/5
  
```

Read section 5.2 in the textbook

Do Ex. 5.2 #1-7

I will post solutions to #1, 2, 4 on Thursday

I would like you to email me

(gerry.heffernan@tdsb.on.ca) your answers to
#3 by Tuesday, April 14 (either type into email, or
attach a word document or picture of hand written work)

I will post solutions to #5-7 on Tuesday