

STUDENT FIRST NAME / LAST NAME: _____

CLASS: C _____

ALGORITHM EXAM #2

1h

SCORE	/ 100
COMMENT	

WARNING !\

YOU NEED TO CHECK CAREFULLY STEP BY STEP THAT YOUR CODE WORKS

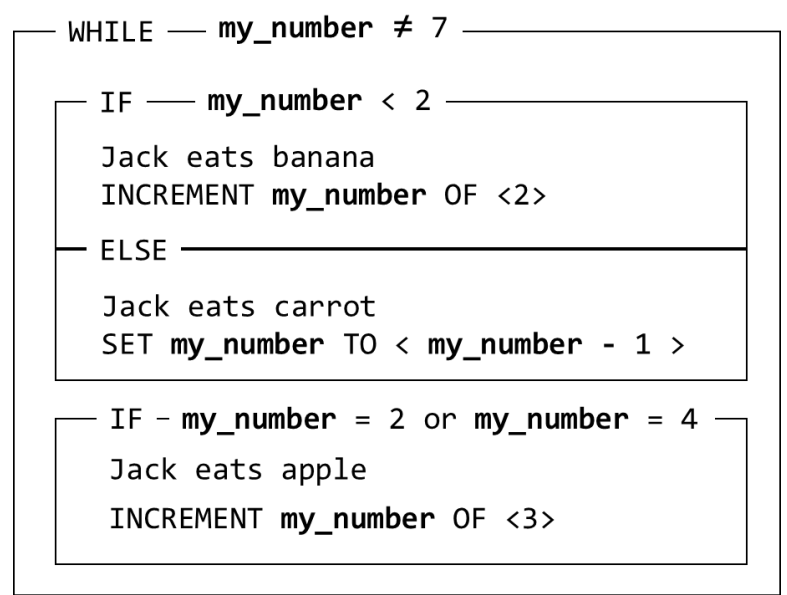
If you code does not work, you will get a 0 score

DO NOT USE INSTRUCTION OR CONDITION THAT ARE NOT ALLOWED

Exercise 1 (15 POINTS)

Complete the table. Use a new line every time my_number changes

SET <my_number> to < 0 >



my_number	What Jack eats?
0	banana
2	apple
5	carrot
4	apple

Exercise 2 (15 POINTS)

Draw the path of Jack (with arrows \longrightarrow \downarrow)

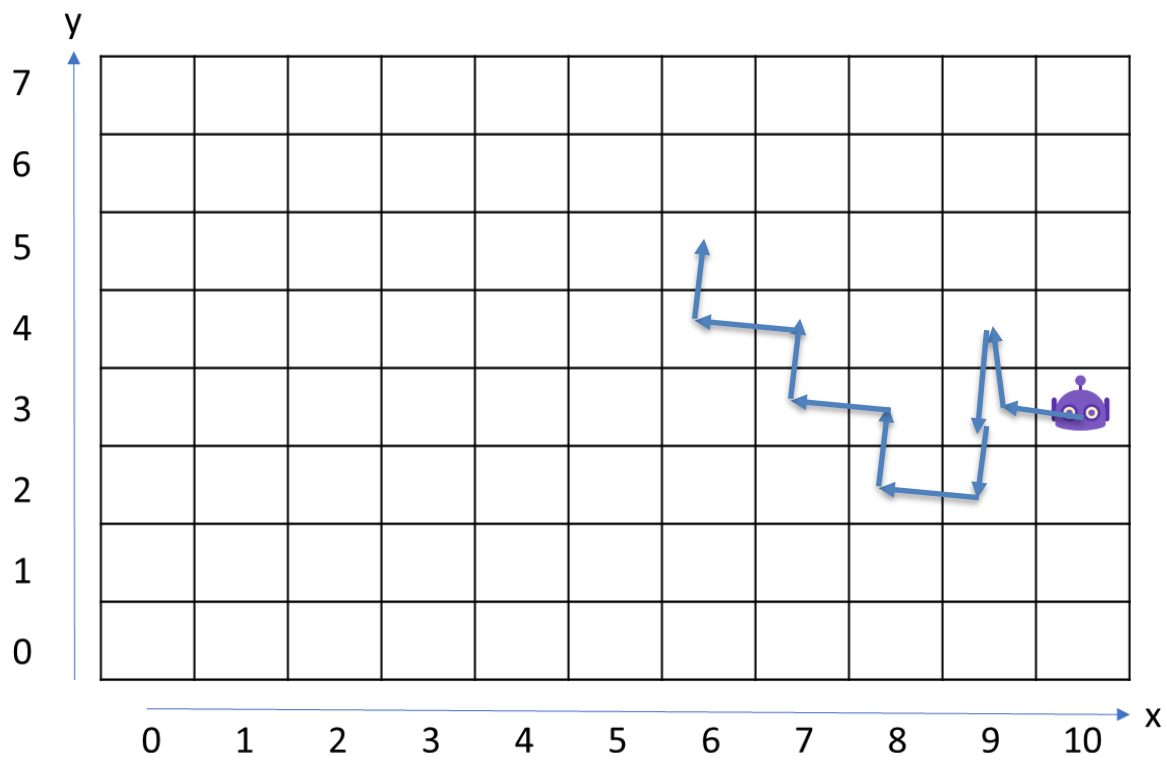
SET `<my_variable>` to `< 0 >`

WHILE — `my_variable < 3` —

REPEAT `<my_variable>` times
Go down










REPEAT `<my_variable + 1>` times
Go left
Go up

INCREMENT `<my_variable>` OF `<1>`







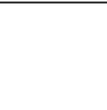




Exercise 3 (25 POINTS)

Objective	<ul style="list-style-type: none">Count the score: If has cell diamond: +2 points If has cell carrot: +3 pointsWrite the score on the last cell <p>Warning: your code must work for the 2 cases!!!!</p>
Maximum number of instructions	10
Allowed instructions	GO-RIGHT SET <score> TO < > INCREMENT <score> OF < > REPEAT < > TIMES <score> IF <CONDITION> IF <CONDITION> ELSE WRITE <score>
Allowed conditions	<HAS CARROT> <HAS DIAMOND>



CASE 1

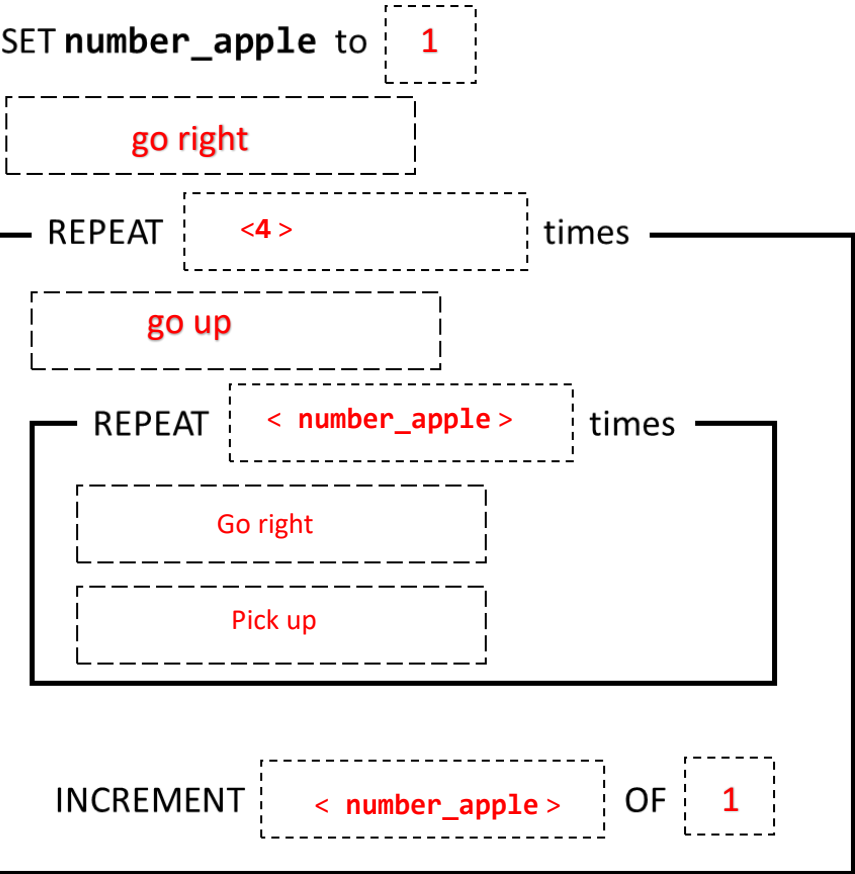
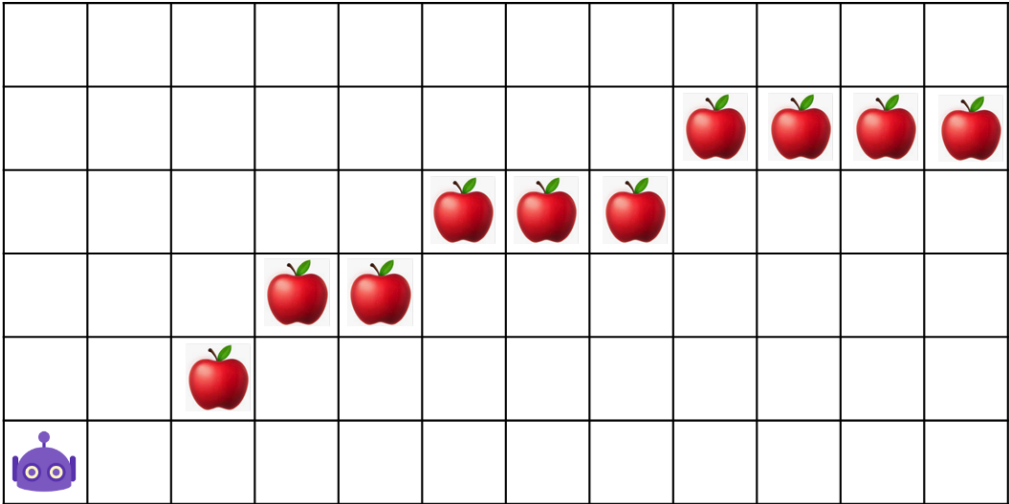


CASE 2

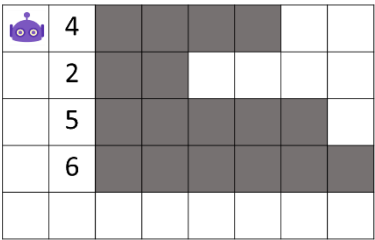
```
SET <score> TO < 0 >  
REPEAT < 8 > TIMES  
  GO-RIGHT  
  IF <HAS CARROT>  
    INCREMENT <score> OF < 3 >  
  IF < HAS DIAMOND >  
    INCREMENT <score> OF < 2 >  
  WRITE <score>
```

Exercise 4 (20 POINTS)


Objective	<ul style="list-style-type: none">Pick up all apples
Allowed instructions	GO-RIGHT GO-UP PICK-UP IF <CONDITION> SET <number_apple> TO < > IF <CONDITION> ELSE INCREMENT <number_apple> OF < > REPEAT < > TIMES WRITE < number_apple > < number_apple > WHILE <CONDITION>
Allowed conditions	NO CONDITION ALLOWED




Exercise 5 (25 POINTS)

Objective	<ul style="list-style-type: none"> For each lines: there is a number N. Paint N cells on the right side this number But if cell has a cross, do not pain the cell <p>For instance , for case 1 , the result will be :</p>  <p><u>Warning: your code shall work for the 2 cases!!!!</u></p>
Max number of instructions	10
Allowed instructions	GO-RIGHT GO LEFT GO DOWN GO UP PAINT Variables: SET <number_of_paint> TO < > <number_of_paint> <VALUE ON CELL>
Allowed conditions	<i>NO CONDITION ALLOWED</i>

CASE 1

	4								
	2								
	5								
	6								

CASE 2

	3								
	1								
	8								
	4								

