# ACTIVITIES

EXERCISE 1:

|  |  |
| --- | --- |
| Objective | Jack must sum the number on cell and paint on the dots cell.  **Your code shall work for the 2 cases!!!!** |
| Maximum number of instructions | 10 |
| Allowed instructions | IF <CONDITION> WHILE <CONDITION>  GO-RIGHT REPEAT <N TIMES>  PICK-UP PAINT-CELL SET <MY-NUMBER>TO<>  INCREMENT<MY-NUMBER> OF <> <MY-NUMBER> <value on cell> |
| Allowed conditions | <HAS DOT>  <HAS CELL ON RIGHT> |

Case 1:



Case 2:



Go right

Go right

Set <my number>to<value on cell>

Go right

INCREMENT <my number>to<value on cell>

Go right

Repeat<my-number>

Go right

Paint-cell

EXERCISE 2:

|  |  |
| --- | --- |
| Objective | * Pick up all apples * Print the number of apples on the green cell.   **Your code shall work for the 2 cases!!!!** |
| Maximum number of instructions | 7 |
| Allowed instructions | IF <CONDITION> WHILE <CONDITION>  GO-RIGHT REPEAT <N TIMES>  PICK-UP PAINT-CELL WRITE<value>  INCREMENT<MY-NUMBER> OF <> <MY-NUMBER> |
| Allowed conditions | <HAS CELL ON LEFT> <HAS APPLE>  <HAS CELL ON RIGHT> |

Case 1:



Case 2:



SET <MY-NUMBER>TO<0>

While<Has cell on right>

Go right

IF<Has apple>

Pick up

INCREMENT<my-number> of <1>

write<my-number>

EXERCISE 3:

|  |  |
| --- | --- |
| Objective | * Paint on cell that has not apple from first cell * Print the number of apples on the green cell * លាបពណ៍នៅលើក្រលាដែលគ្មានផ្លែប៉   **Your code shall work for the 2 cases!!!!** |
| Maximum number of instructions | 8 |
| Allowed instructions | GO-RIGHT PICK-UP GO-DOWN  WHILE <CONDITION> IF<CONDITION>  IF<CONDITION> ELSE PAINT-CELL  WRITE<value> SET<my\_number>TO<>  INCREMENT<my\_number> OF <>  <my\_number > |
| Allowed conditions | <HAS APPLE>  <HAS CELL ON RIGHT> |

Case 1:



Case 2:



SET <MY-NUMBER>TO<0>

While<Has cell on right>

IF<Has apple>

Pick up

INCREMENT<my-number> of <1>

IF<Has apple>else

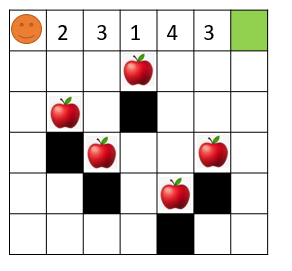
Paint-cell

Go right

Write <MY-NUMBER>

EXERCISE 4:

|  |  |
| --- | --- |
| Objective | Bring apple into the black box |
| Maximum number of instructions | 10 |
| Allowed instructions | GO-RIGHT GO-LEFT PICK-UP GO-DOWN DROP  WHILE <CONDITION> REPEAT<N TIME> IF<CONDITION> WRITE<value> SET<my\_number>TO<> GO-UP  INCREMENT<my\_number> OF <>  <my\_number > <value on cell> |
| Allowed conditions | <HAS APPLE> <HAS GREEN CELL>  <HAS CELL ON RIGHT> <HAS **NOT** GREEN CELL> |



Repeat<5>

Go right

Set<my-number>to<value on cell>

Go right

Go up

Repeat<my number>+1

Drop

Go down

Pick up

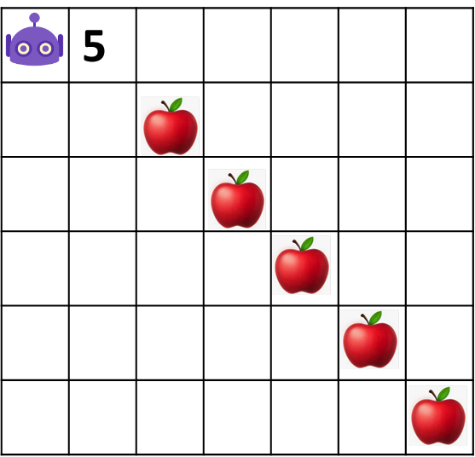
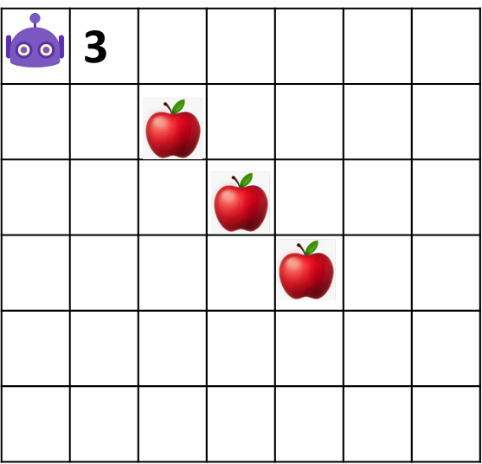
Go down

Repeat<my number>

EXERCISE 5:

|  |  |
| --- | --- |
| Objective | Pick up all apples!!!  **Warning: your code shall work for the 2 cases!!!!** |
| Maximum number of instructions | 12 |
| Allowed instructions | IF <CONDITION> GO-RIGHT PICK-UP GO-DOWN GO-UP  REPEAT < > TIMES WHILE <CONDITION>  WRITE < > SET <MY-NUMBER>TO< >  INCREMENT<MY-NUMBER> OF < > <MY-NUMBER> |
| Allowed conditions | <HAS CELL ON LEFT> <HAS APPLE>  <HAS CELL ON RIGHT> |

**CASE 1 : CASE 2:**

Pick up

Go right

Go down

Set<my-number>to<value on cell>

Repeat<my number>

Go right