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| OLDBURY WELLS |
| An Introduction to Pseudocode |
| Workbook |
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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |



100

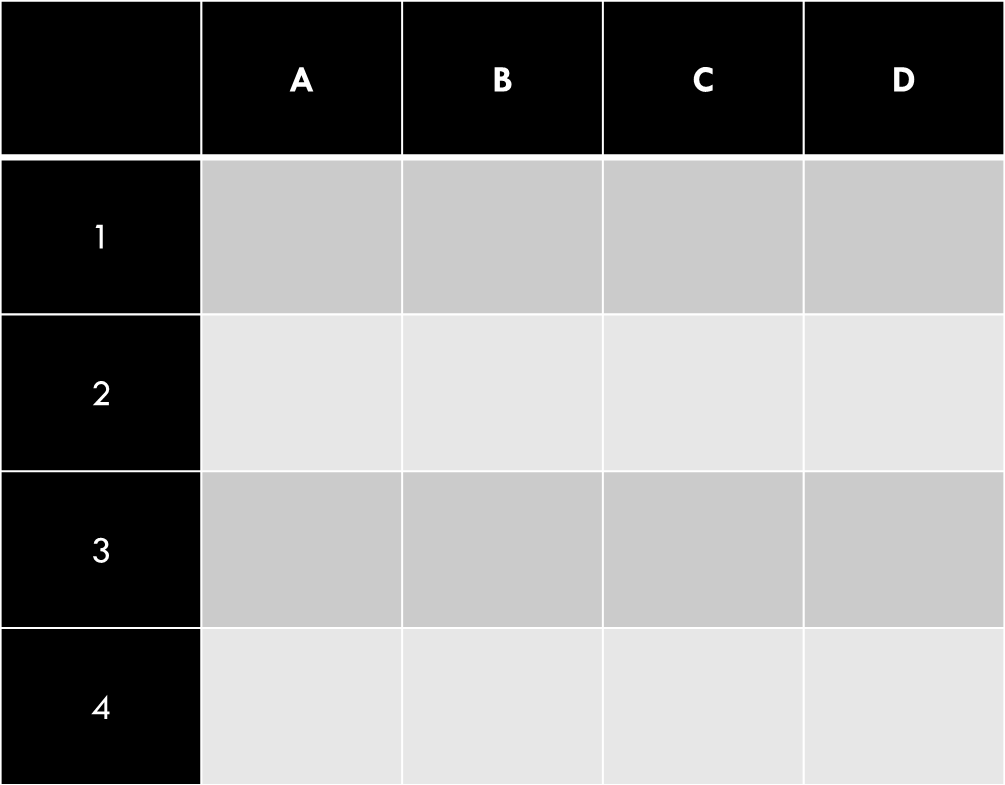
= 90 degrees

100

**TASK 1** = How do you get Minion Stuart to draw the square? What is the sequence of actions to move?

|  |  |
| --- | --- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |

You have written the **algorithm** to show the list of instructions and you have written it in **pseudocode** = numbered list of instructions.

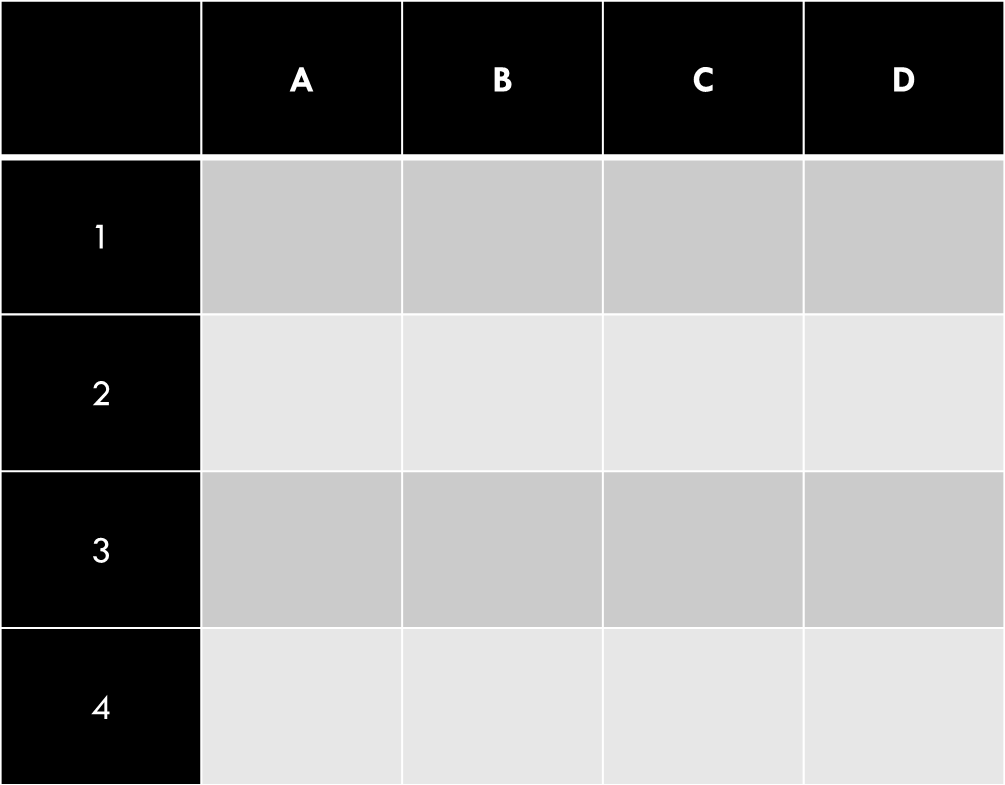


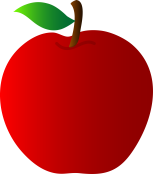
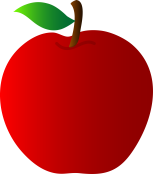
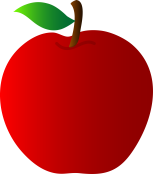
Can you write the Pseudocode (the sequence of actions) to move Minion Stuart through the squares to collect the bananas?

Hint : *Remember to pick up the bananas not just go over them*

**You need to write the list of instructions in NOTEPAD remembering to number the actions**

***Extension*** *– Can you add a ‘question to say if the minion reaches a banana?*





Can you write the pseudocode to get Minion Stuart to move through the squares collecting bananas NOT apples and use a question to determine what action he does?

***Hint = you will need to use an IF question.***

**You need to write the list of instructions in NOTEPAD remembering to number the actions and INDENT the answer to the question (IF)**

**Example:**

1. Move Minion Stuart 3 squares
2. IF you reach a banana
   1. THEN Pick it up
3. Move Minion Stuart down 1 square

Standard Key Words to use in **Pseudo Code**

|  |  |
| --- | --- |
| Technique | Example |
| Selection/Conditional Statement | **IF** *condition* **THEN**  *true alternative*  **ELSE**  *false alternative*  **ENDIF** |
| Iteration/Loops | **FOR** *i to/in …*  *statements to carry out*  **END** FOR  **WHILE** *condition* **THEN**  *statements to carry out*  **END WHILE**  **REPEAT** *statement* **UNTILL …** |
| Operators | > Greater Than  < Less Than  >= Greater than or equal to  <= Less than or equal to  == Equal To  = Equals  != not equal to |
| Input and Output | **INPUT….**  **OUTPUT…** |
| Function/Procedure | **PROCEDURE** *name*  **END PROCEDURE**  **FUNTION** *name*  **END FUNTION** |

**Finally:**

**Can you tell me in your own words what pseudocode is?**

**Please complete the following self-assessment:**

|  |  |  |  |
| --- | --- | --- | --- |
| Question | Found Task Easy | Completed OK | Found Task Hard |
| Wrote a series of actions to make a square |  |  |  |
| Wrote the pseudocode to move Minion Stuart around collecting bananas |  |  |  |
| Wrote the pseudocode to move Minion Stuart around collecting bananas NOT apples by using a question |  |  |  |

|  |  |  |
| --- | --- | --- |
| Level | Descriptor | Tick |
| 3 | Plan a sequence of instructions and present the sequence in a list |  |
| 4 | Think through the algorithm and use pseudocode to plan this out allowing the final format to be read easily before programming |  |
| 5 | Analyse and present the algorithm for the task, refine the sequence by adding the IF question. Reflect on the pseudocode created to better prepare for future tasks. |  |
| 6 | Independently wrote the pseudocode for moving the minion around the board collecting bananas and not apples, using IF appropriately. |  |
| 7 | Be able to test the different pseudocode created, with peer assessment as you are developing them, reflect on the results and then improve them |  |



Thank you from Mrs Jones