



# F13.3 Pseudocode in the exam

Exam preparation · GCSE · about 15 min

Name \_\_\_\_\_

Class \_\_\_\_\_

Date \_\_\_\_\_

## What this lesson is about

Reading and writing exam pseudocode and flowcharts, and translating both ways.

- The same algorithm, three ways
- Reading it
- Writing it
- Flowcharts

## Questions

5 marks in all

1. How many times does FOR i = 1 TO 5 run?

[1 mark]

- ☐ A 5
- ☐ B 4
- ☐ C 6
- ☐ D It depends on the board

2. Which pseudocode keyword prints something?

[1 mark]

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3. In a flowchart, what does a diamond mean?

[1 mark]

- ☐ A A decision
- ☐ B A process
- ☐ C Input or output
- ☐ D The start

4. What does this program print?

[1 mark]

```
for i in range(1, 4):  
    print(i * i)
```

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5. You are asked to write an algorithm. What may you use?

[1 mark]

- ☐ A Pseudocode or a real language, as long as it is clear
- ☐ B Only your board's reference language
- ☐ C Only Python
- ☐ D Only a flowchart

## The task: pseudocode into Python

Turn the pseudocode in the comment into a working program. It asks for a number of steps, drives that many 10 cm steps while counting the total distance, and prints the total. `input()` is answered for you with `4`.

```
# the two lines every program starts with: the commands, then the robot
from bugbot import *
connect()

# steps = USERINPUT
# total = 0
# FOR i = 1 TO steps
#     MOVE FORWARD 10
#     total = total + 10
#     OUTPUT "step " + i + ": " + total
# NEXT i
# OUTPUT "total: " + total
```

**Plan your program here, then type it in and press Run.**



**Do it on the robot**

[www.bugbotlab.com/learn/f13-3-pseudocode-in-the-exam/](http://www.bugbotlab.com/learn/f13-3-pseudocode-in-the-exam/)

The simulator checks it and tells you when it passes. Nothing to install, no account.

## Challenges

1. Rewrite the same algorithm as a `WHILE` loop in pseudocode, then in Python.
2. Write the pseudocode for a program that finds the largest of three numbers.
3. Draw the flowchart for the task above.