WORKSHEET

F3.1 String handling

Strings, lists and records · GCSE · OCR J277 2.2.3, AQA 8525 3.2.8, Edexcel 1CP2 6.3.3 · about 15 min

BugBotLab

Name _____ Class _____ Date _____

What this lesson is about

Length, indexing, slicing, searching and joining strings, and f-strings.

- Joining strings
- Length and indexing
- Slicing
- Searching
- Building reports with f-strings

Questions

11 marks in all

1. What does this program print? [1 mark]

```
first = "Bug"
second = "Bot"
print("Hello, " + first + second + ".")
```

2. What happens with `print("battery: " + 92)`? [1 mark]

- ☐ **A** TypeError: text and a number cannot be joined with +
- ☐ **B** It prints battery: 92
- ☐ **C** It prints battery: + 92
- ☐ **D** SyntaxError

3. What does this program print? [1 mark]

```
speed = 45
print(f"driving at {speed} and half is {speed / 2}")
```

4. What does this program print? [1 mark]

```
word = "BugBot"
print(len(word))
print(word.upper())
```

5. What does this program print? [1 mark]

```
print("-" * 5)
```

6. What does this program print? [1 mark]

```
print(f"{10 / 3:.2f}")
```

7. What does this program print? [1 mark]

```
word = "BugBot"
print(word[0], word[3], word[-1])
```

8. What does this program print? [1 mark]

```
word = "BugBot"
print(word[1:4])
```

9. What does this program print? [1 mark]

```
message = "wall ahead"
print(message.find("ahead"), message.find("ball"))
```

10. OCR's `name.substring(3, 3)` on "BugBot" gives "Bot". What does the second 3 mean? [1 mark]

- ☐ **A** Take 3 characters
- ☐ **B** Stop at index 3
- ☐ **C** Start at index 3
- ☐ **D** Repeat 3 times

11. What is joining two strings together called? [1 mark]

- ☐ **A** Concatenation
- ☐ **B** Slicing
- ☐ **C** Casting
- ☐ **D** Iteration

The task: status report

Drive 10 cm, then print **one line** in exactly this shape (your numbers will differ):

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

forward(50, distance=10)
x, y = position()
print(f"BugBot at x={x} ...")
```

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

Do it on the robot

www.bugbotlab.com/learn/f3-1-string-handling/

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

Challenges

1. Print a name backwards. (Hint: a slice can have a third number, the step, and `-1` walks backwards.)
2. Ask for a sentence and print how many times the letter `e` appears in it, using `count`.
3. Print a report with the heading rounded to a whole number, framed by lines of `=`.