

Exercise 6

Module 6: Programming Paradigms

1.

Complete each sentence. Choose from: paradigm · class · object · method · attribute

- (a) A programming _____ is a style or approach to writing code.
- (b) In OOP, a _____ is the blueprint.
- (c) A real thing created from a class is called an _____.
- (d) Data stored inside an object (like a name or a value) is called an _____.
- (e) A function defined inside a class is called a _____.

2.

Read this class carefully and answer the questions below:

```
class Field:
    def __init__(self, name, crop):
        self.name = name
        self.crop = crop

    def describe(self):
        print(self.name, "grows", self.crop)

f1 = Field("North Plot", "wheat")
f2 = Field("South Plot", "barley")
f1.describe()
```

- (a) What is the name of the class?
- (b) Which paradigm is this?

3.

Spot the Style

Name the paradigm for each code block and give one short reason.

(a)

```
yields = [24.7, 21.2, 19.8]
total = 0
for y in yields:
    total = total + y
print(total / len(yields))
```

(b)

```
def average(data):  
    return sum(data) / len(data)  
  
print(average([24.7, 21.2, 19.8]))
```

(c)

```
class Sensor:  
    def __init__(self, location, value):  
        self.location = location  
        self.value = value  
    def report(self):  
        print(self.location, ":", self.value)
```