

# Python Exercises

Python and R for Data Science

Data Science and Management



# Exercise 1

1. Define two variables `a` and `b` with initial values `10` and `12` , respectively.
2. Define the variable `c` as the sum of `a` and `b`
3. Print `c`

```
In [1]: # Solution goes here
```

## Test your code

Run this code to test your solution:

```
In [2]: try: assert c == (a + b) and c == 22 and not print("Test passed")  
except: print('Test failed')
```

Test failed

## Exercise 2

1. Compute the area of a triangle with:

- base: 5.0
- height: 7.5

2. Store the result in the variable `area`

3. Print the area

```
In [4]: # Solution goes here
```

## Test your code

Run this code to test your solution:

```
In [5]: try: assert area == 17.5 and not print("Test passed")  
except: print('Test failed')
```

Test failed

## Exercise 3

1. Compute the volume of a cube with `side` equal to `8.0`
2. Store the result in the variable `volume`
3. Print the area

In [7]: *# Solution goes here*

## Test your code

Run this code to test your solution:

```
In [8]: try: assert volume == 512 and not print("Test passed")  
except: print('Test failed')
```

Test failed

# Exercise 4

1. Define:

- `x` equal to `10`
- `y` equal to `20`

2. Compute the result of:

$$(x - 4)^3 + 5$$

$$4 \cdot (y \bmod 3)$$

3. Store the result in the variable `result`

4. Print the result

```
In [10]: # Solution goes here
```



## Test your code

Run this code to test your solution:

```
In [11]: try: assert result == 27.625 and not print("Test passed")  
except: print('Test failed')
```

Test failed

## Exercise 5

1. Define the string `s` equal to `Bazinga!`
2. Count the number of characters in `s` and store it in the variable `length`
3. Print `length`

In [13]: *# Solution goes here*

## Test your code

Run this code to test your solution:

```
In [14]: try: assert length == 8 and not print("Test passed")  
except: print('Test failed')
```

Test failed

