# Homework 1 Fundamentals

1. **Debugging**

Look at the following code – there are 3 errors.

weightOne = float(input(“Enter the weight of box 1: ”))

weightTwo = float(input(“Enter the weight of box 2: ”))

if weightOne > weightTwo:

print(“Box 1 is lighter”)

elif weightOne < weightTwo:

Print(“Box 2 is lighter”)

else:

print(“The two boxes weigh the same)

Identify each error, state whether it is a **logic** or **syntax** error and explain how to fix it. [6]

Error 1:

Type of error:

Solution:

Error 2:

Type of error:

Solution:

Error 3:

Type of error:

Solution:

1. **Runtime error**

Give an example of a value the user could enter that would trigger a runtime error. [2]

1. **Print Statements**

Describe the output of the following program. [2]

name = “Dave”  
age = 23  
topping = “mushroom”  
print(name + “is” , age , “years old.”)  
print(name , “ loves ” + topping + “ pizza.”)

Rewrite the last two lines of code so that the printout is neat and tidy. [2]

1. **Data Types**

Re-write the following table to match the data types with their descriptions and examples:

|  |  |  |
| --- | --- | --- |
| Data Type | Description | Example |
| integer | Any piece of text | True |
| float | Can only be True or False | 5 |
| boolean | A fractional number | “Dave” |
| string | A whole number | 7.3 |

|  |  |  |
| --- | --- | --- |
| Data Type | Description | Example |
| Integer |  |  |
| float |  |  |
| boolean |  |  |
| string |  |  |

[4]

[Total 16 marks]