# Worksheet 05

## Task 1

A client, GuavaNet has approached you and have asked for a computer program that helps them calculate customer phone bills. Create a code for a program to do the following:

* Accept the user’s name and mobile phone network
* Ask for the number of minutes they have used this month and multiply that by £0.10 per minute
* Ask for the number of texts that they have sent in a month and multiple that by £0.05 pence per text
* Display a total bill amount for the month
* Display a new total including VAT of 20%

Well named variables, comments, clear code.

Screenshots:

Testing / proof that it works:

## Task 2

Explain the difference between:

* 3
* 3.0
* “3”

The difference is …

We talked about the int(“12) What does casting mean?

## Task 3

For the following make use of screenshots to help you!

Describe **if**, **else** statement:

Describe the use of **elif** statements:

Describe different comparison operators and uses:

What is the importance of indentation?

## Task 4

Type in the following and explain what is happening in each. Use the following links to help with your research:

<https://developers.google.com/edu/python/strings>

Google “python string slicing”

|  |  |  |
| --- | --- | --- |
| Type this into Python | What is printed out | What is happening |
| myName = ‘your name’ |  |  |
| print(myName) |  |  |
| print(myName[0]) |  |  |
| print(myName[4]) |  |  |
| print(myName[2:5]) |  |  |
| print(myName[3:]) |  |  |
| print(myName\*2) |  |  |
| print(myName[:4]) |  |  |
| print(myName + “ is awesome”) |  |  |

## Task 5

Create a program that calculates how many hours you sleep in a week. Ask the user for how many hours they sleep in one night. Multiply this by 7 to get hours per week.

Can you extend the program to calculate how many hours you sleep in a month?

## Task 6

If I earn £29,000 a year, how long would it take me to save £600,000,000?

Allow the user to enter their wages, then their target (e.g. to become a billionaire) then tell them in what year they will achieve their dreams.