Starter - Functions

These tasks are designed to refresh the reading and research you have undertaken at home prior to this lesson. If you have not completed the R&R assignment then please speak to your teacher before attempting these exercises.

Structure tables and heirarchy charts

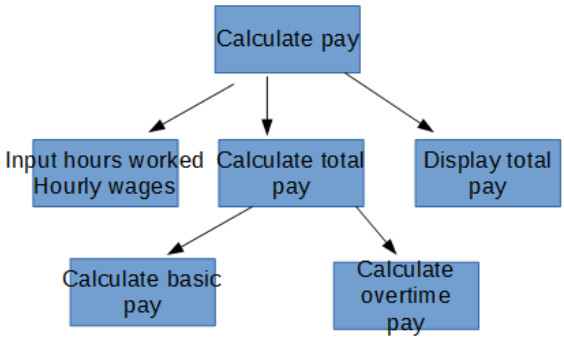
Task 1

Arrange these sub-problems into the structure table outline provided.

Sub-problems	Structure table
`CALCULATE pay`	0
`INPUT number of hours worked, pay rate`	0.1
`CALCULATE total pay`	0.2
`CALCULATE basic pay`	0.2.1
`CALCULATE overtime pay`	0.2.2
`DISPLAY total pay`	0.3

Task 2

Complete this hierarchy chart for the above structure chart.



Task 3

What would a program do that was developed from the above structure table and hierarchy chart?

Answer: It would firstly ask for the user to input how many hours they worked and their wages. It would calculate the basic pay by multiplying the hourly wages with the hours less than the amount of hours which are considered overtime, e.g 40. It would then add the sum of the extra hours (above 40) multiplied by the hourly wages, and display this value.

Task 4

Write the program to calculate total pay using the above plan as your guide.

```
#Jordan Russell
#14/11/14
#Functions Starter 1 - Calculate pay

hours_worked = int(input("Please input how many hours you have worked this week: "))
hourly_wages = float(input("Please input your hourly wages: "))
if hours_worked > 40:
    extra_hours = hours_worked - 40
    basic_pay = round(hourly_wages * 40, 3)
    extra_pay = round(extra_hours * hourly_wages, 3)
    total_pay = round(basic_pay + extra_pay, 3)
    print("This week you earned £{0}, and your extra pay is £{1}. Your total pay is £{2}.".format(basic_pay, extra_pay, total_pay))
elif hours_worked <= 40:
    total_pay = round(hours_worked * hourly_wages, 3)
    print("This week you earned £{0}.".format(total_pay))
```

```
>>>
Please input how many hours you have worked this week: 56
Please input your hourly wages: 5.43
This week you earned £217.2, and your extra pay is £86.88. Your total pay is £304.08.
>>>
```