Lab 1

Prerequisites: Variables (types), expressions, assignments, simple input and output

1.0 Write a program that reads an integer from the console, stores it in a variable and prints that variable.

1.1 Write a program that prints the variable type of three variables.
Example: a=2 b=3.0 c='myName'

```
Output:     2 is of type <class 'int'>
            3.0 is of type <class 'float'>
            myName is of type <class 'str'>
```

1.2 Write a program that reads two integers on one line from the console and prints these on the next line using a phrase such as demonstrated below.
Example:
```
Enter two integers: 17 7
The integers are 17 and 7
```

1.3 Write a program that reads two integers on one line from the console and prints the sum and product on the next line.
Example:
```
Enter two integers: 2 3
Sum: 5
Product: 6
```

1.4 Write a program that reads two integers and prints the integer quotient, the real quotient and the remainder
Example:
```
Input: 11 4
Integer quotient: 2
Quotient: 2.75
Remainder: 3
```

1.5 Expand the previous program so the real quotient is also printed using two decimal places.
Example:
```
Input: 10 3
integer quotient: 3
quotient: 3.3333333333333335
remainder: 1
quotient (2decimal places): 3.33
```

1.6 Write a program that reads hours, minutes and seconds separately and prints them on one line. Hours and minutes are integer numbers, seconds have 2 decimal places.
Example:
```
hours: 10
minutes: 11
seconds: 22.34
Time is 10 hours, 11 minutes and 22.34 seconds
```

1.7 Write a program that reads your name and first name separately and prints them on one line. Test your program using a name containing a whitespace (e.g. Van Bauwel).

1.8 Write a program that asks the user to enter the radius of a circle and prints the surface of that circle. Use PI as a variable equal to 3.141592653589793.

1.9 Write a program that asks the user to enter an integer number of seconds and prints how many days, hours, minutes and seconds this represents (do not use loops for this exercise)
Example:
```
Enter a number of seconds: 86399
86399 seconds is 0 days, 23 hours, 59 minutes and 59 seconds
```

1.10 Write a program that asks 5 integer numbers and prints the average after each entry using 2 decimal places. Do not use loops for this assignment and use 4 variables at most!
Example:
```
Enter integer number 1: 10
Average: 10.0
```

```
Enter integer number 2: 20
Average: 15.0
Enter integer number 3: 15
Average: 15.0
Enter integer number 4: 20
Average: 16.25
Enter integer number 5: 30
Average: 19.0
```

1.11 Write a program that asks an integer amount of Euro's (e.g. 888) and prints what bills (500,200,100,50,20,10,5) and coins (2,1) this represents. Use only one variable!

1.12 A voltage U is applied to 2 series resistors R1 and R2. The current I can be found (using Ohm's law) as: $I = \frac{U}{R1+R2}$. The voltage U2 over resistor R2 is I.R2. Write a program that reads the values of U, R1 and R2 and calculates and prints I and U2 on a single line.

Example:
```
Enter U[V]: 10
Enter R1[Ohm]: 5000
Enter R2[Ohm]: 5000
I = 0.001000 A, U2 = 5.000000 V
```

1.13 Write a program that asks an integer value and prints that value as a decimal, hexadecimal and octal value