

Exercise 1 – Formatting Output, Data Types, Variables

Part A:

1. Record what happens when you print an assignment statement:

```
>>> print n = 7
```

How about this?

```
>>> print 7 + 5
```

Or this?

```
>> print 5.2, "this", 4 - 2, "that", 5/2.0
```
2. Add parenthesis to the expression `6 * 1 - 2` to change its value from 4 to -6.
3. Type `print number + 5`. What's the error? Can you fix it?
4. Explain the difference between what the two programs compute.

program 1

```
x = 2  
y = x + x  
print y
```

program 2

```
s = "2"  
t = s + s  
print t
```

Part B: Writing programs

1. Write a program to output three different address labels that have the person's name on the first line, their address on the second line, the city and province on the third line and the postal code on the fourth line. Put two blank lines between each of the labels. Save your program as `ex1_1_address_labels.py`.
2. Write a program to calculate your age. The output should appear as follows:

Jack Smith is 16 years old.

The age should be calculated by subtracting your birth year from the current year. Save your program as `ex1_2_calc_age.py`.

3. Write a program to calculate the annual interest payable on a loan of \$5365.25 at 12 ½%. The output should appear as follows:

Interest on \$5,365.25 at 12.5% is: \$xxx.xx

Make sure you round your answer to two decimal places (use the `round(x,ndigits)`). Save your program as `ex1_3_annual_interest.py`.

4. Write a program to calculate the sales tax payable on a purchase of a pair of shoes retailing for \$82.50. The calculated HST should appear on a separate line and an additional line should be displayed giving the total. Make sure you round your answers to two decimal places. Save your program as `ex1_4_sales_tax.py`.