THINK PYTHON

CHAPTER TWO (25/04/2020)

trazoM’s Assignment

EXERCISE 1 - 1

1. We've seen that n = 42 is legal. What about 42 = n?

```
>>> n = 42
>>> 42 = n
  File "<input>", line 1
SyntaxError: cannot assign to literal

>>>
```

2. How about x = y = 1 ?

```
>>> x = y x 1
  File "<input>", line 1
    x = y x 1
          ^
SyntaxError: invalid syntax

>>>
```

3. In some languages every statement ends with a semicolon, ;. What happens if you put a semicolon at the end of a Python statement?

```
>>> print ('I have put a semi-colon at the end of this statement');
I have put a semi-colon at the end of this statement

>>>
```

Wow! It still works!

4. What if you put a period at the end of a statement?

```
>>> #putting a period at the end of a statement

>>> print ('I have put a period at the end of this statement').
...
...
...
```

I get an indentation.

5. In math notation you can multiply *x* and *y* like this: *xy*. What happens if you try that in Python?

```
>>> #In math notation you can multiply x and y like this: xy. What happens if you try that in Python?
>>> x = 5
>>> y = 2
>>> xy
Traceback (most recent call last):
  File "<input>", line 1, in <module>
NameError: name 'xy' is not defined
```

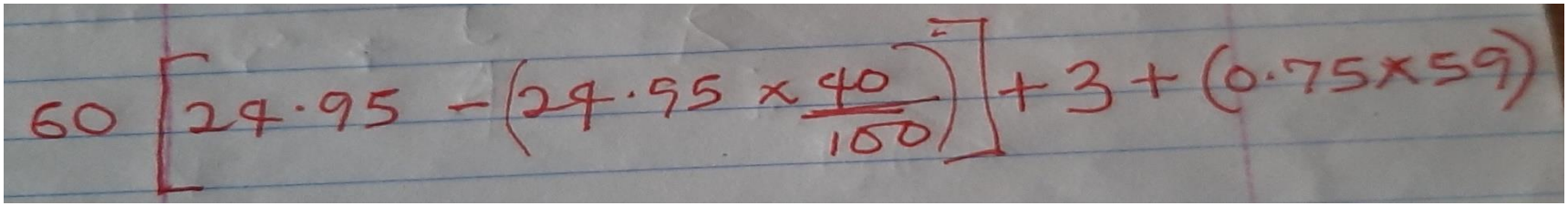
EXERCISE 2 - 2

Practice using the Python interpreter as a calculator:

1. The volume of a sphere with radius *r* is $4\pi r^3/3$. What is the volume of a sphere with radius 5 ?

```
>>> #1. The volume of a sphere with radius r is 4πr³/3. What is the volume of a sphere with radius 5?
>>> import math
>>> (4*math.pi*5**3)/3
523.5987755982989
```

2.Suppose the cover price of a book is $24.95, but bookstores get a 40% discount. Shipping costs $3 for the first copy and 75 cents for each additional copy. What is the total wholesale cost for 60 copies?




```
>>> '''Suppose the cover price of a book is $24.95, but bookstores get a 40% discount.
... Shipping costs $3 for the first copy and 75 cents for each additional copy.
... What is the total wholesale cost for 60 copies?
... '''
'Suppose the cover price of a book is $24.95, but bookstores get a 40% discount. \nShi
>>> 60*(24.95-(24.95*(40/100)))+3+(0.75*59)
945.4499999999999
```

3. If I leave my house at 6:52 am and run 1 mile at an easy pace (8:15 per mile), then 3 miles at tempo (7:12 per mile) and 1 mile at an easy pace again, what time do I get home for breakfast?

```
>>> time_in_minutes = (6*60)+52
>>> easy_pace = 2*(8+(15/60))
>>> tempo_pace = 3*(7+(12/60))
>>> hour_back = int((time_in_minutes + easy_pace + tempo_pace)//60)
>>> minutes_back = int((time_in_minutes + easy_pace + tempo_pace)%60)
>>> print("The man came back at " + str(hour_back) + ":" + str(minutes_back))
The man came back at 7:30
>>> print("The man came back at " + str(hour_back) + ":" + str(minutes_back) + "am")
The man came back at 7:30am
```