Note Sheet

Print a message verbatim:

```
print("hello world")
```

Assign a value to a variable, and print its value:

```
x = 5
print(x)
```

Sample program, with arithmetic operations:

```
x = 5
y = x - 1
x = 3 * y + 5
print("x:")
print(x)
print("y:")
print(y)
```

Sample program, to convert degrees fahrenheit to degrees celsius:

```
degrees_f = 52
degrees_c = (5/9)*(degrees_f - 32)
print("Temperature in degrees fahrenheit:")
print(degrees_f)
print("Temperature in degrees celsius:")
print(degrees_c)
```

Sample program, to compute the average value of a list:

```
exam_scores = [85, 93, 88]
sum = 0
for score in exam_scores:
        sum = sum + score
average = sum / 3
print(average)
```

Sample program, using "if" and "else" statements:

```
exam_scores = [85, 93, 88]
sum = 0
for score in exam_scores:
        sum = sum + score
average = sum / 3
if average >= 60:
        print("Yay!  You passed!")
else:
        print("Sorry, you didn't pass :(")
```

Sample program, defining a function:

```
def average(numbers):
        sum = 0
       for value in numbers:
              sum = sum + value
       return sum / (len(numbers))

exam_scores = [85, 93, 88]
average_score = average(exam_scores)
print(average_score)
```

Sample program, using numpy functions:

```
import numpy as np

scores = [85, 93, 88]
average_score = np.average(scores)
median_score = np.median(scores)
stdev_score = np.std(scores)
print("AVERAGE:")
print(average_score)
print("MEDIAN:")
print(median_score)
print("STANDARD DEVIATION:")
print(stdev_score)
```