```
# 1. write a command that produces this output List: [2, 4, 6, 8, 10, 12, 16]

list1 = [x for x in range(2,13,2)]
list1.extend([16])
print(list1)
```

```
[2, 4, 6, 8, 10, 12, 16]
```

```
# 2. write a command that produces this output List: [201, 191, 181, 171, 161]

print(list(range(201,160,-10)))
```

```
[201, 191, 181, 171, 161]
```

```
# 3. Combine two strings and print the three strings

greetings = 'Hello hi bonjour '
print(greetings)

farewells = 'Goodbye bye adios '
print(farewells)

courtesy = greetings + farewells
print(courtesy)
```

```
Hello hi bonjour
Goodbye bye adios
Hello hi bonjour Goodbye bye adios
```

```
# 4. sum up 10 random numbers and present the result

import random
a = [random.uniform(1,10) for i in range(10)]
print(a)

def mysum(a):
  return sum(a)
g = mysum(a)
print(g)
```

```
[5.518869153142528, 2.9369401036267075, 2.8758023424276153, 7.1455702485937955,
54.50056978848481
```

```
# 5. present the code and calculations for this math formula

k1 = 10
sum1 = 0
for k1 in range(1, k1+1):
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    sum1 = sum1 + (1/k1)
print(sum)

k2 = 1000
sum2 = 0
for k2 in range(1, k2+1):
    sum2 = sum2 + (1/k2)
print(sum2)

k3 = 10000
sum3 = 0
for k3 in range(1, k3+1):
    sum3 = sum3 + (1/k3)
print(sum3)
```

```
    2.9289682539682538
    7.485470860550343
    9.787606036044348
```