2 a.

color=["red", "green", "purple", "orange", "blue", "yellow"]

pick= input("What is your favorite color ? ")

# Check if the color is in your list

if pick in color:

print("I like that color too.")

else:

print("I do not care too much for that color.")

>>> ================================ RESTART ================================

>>>

What is your favorite color ? orange

I like that color too.

>>> ================================ RESTART ================================

>>>

What is your favorite color ? black

I do not care too much for that color.

>>>

2b.

color =["red", "green", "purple", "orange", "blue", "yellow"]

pick = input("What is your favorite color ? ")

if pick in color:

# Storing the rank of the color picked

rank = color.index(pick) + 1

# Check if the color is in your list

if rank == 1:

print("That is my favorite color.")

elif rank == 2:

print("That is my 2nd favorite color.")

elif rank == 3:

print("That is my 3rd favorite color.")

elif rank > 3:

print("That is my "+str(rank) +"th favorite color.")

else:

print("I do not care too much for that color.")

What is your favorite color ? orange

That is my 4th favorite color.

>>> ================================ RESTART ================================

>>> ================================ RESTART ================================

>>>

What is your favorite color ? yellow

That is my 6th favorite color.

3 a.

#list of composers

list = ["Bach", "Antheil", "Saint-Saens", "Chopin", "Mozart", "Handel"]

#for each item in the list

for x in list:

#check if x is between A and M

if x[0] >= "A" and x[0] <= "M":

print(x)

>>> ================================ RESTART ================================

>>>

Bach

Antheil

Chopin

Mozart

Handel

>>>

3 b.

#prompt for lower and upper bound numbers

lower = int(input("Please enter a lower bound: "))

upper = int(input("Please enter an upper bound: "))

#for each number in the range

for exp in range(lower, upper + 1):

#print 2 \*\* exp = answer

print("2\*\*" + str(exp) + " = " + str(2\*\*exp))

>>>

Please enter a lower bound: 0

Please enter an upper bound: 5

2\*\*0 = 1

2\*\*1 = 2

2\*\*2 = 4

2\*\*3 = 8

2\*\*4 = 16

2\*\*5 = 32

>>> ================================ RESTART ================================

>>>

Please enter a lower bound: 10

Please enter an upper bound: 13

2\*\*10 = 1024

2\*\*11 = 2048

2\*\*12 = 4096

2\*\*13 = 8192

>>>