24.1 LAB: Remove gray from RGB

Summary: Given integer values for red, green, and blue, subtract the gray from each value.

Computers represent color by combining the sub-colors red, green, and blue (rgb). Each sub-color's value can range from 0 to 255. Thus (255, 0, 0) is bright red, (130, 0, 130) is a medium purple, (0, 0, 0) is black, (255, 255, 255) is white, and (40, 40, 40) is a dark gray. (130, 50, 130) is a faded purple, due to the (50, 50, 50) gray part. (In other words, equal amounts of red, green, blue yield gray).

Given values for red, green, and blue, remove the gray part.

Ex: If the input is:

```
130
50
130
```

the output is:

```
80 0 80
```

Find the smallest value, and then subtract it from all three values, thus removing the gray.

Note: This page converts rgb values into colors.

LAB ACTIVITY | 24.1.1: LAB: Remove gray from RGB | 0 / 10

main.py

```
1 Loading latest submission...
```

Develop mode | Submit mode

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → main.py (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

Retrieving signature

24.2 LAB: Longest string

Write a program that takes in two strings and returns the longest string. If they are the same length then return the second string.

Ex. If the input is:

```
almond
pistachio
```

the output is:


```
pistachio
```

334598.1893896.qx3zqy7

LAB ACTIVITY | 24.2.1: LAB: Longest string 10 / 10

main.py

```
1 Loading latest submission...
```


Develop mode | Submit mode

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → **main.py** (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

Retrieving signature

24.3 LAB: Max of 2

Write a program that takes in two integers and outputs the larger value.

Ex: If the input is:

```
4
2
```

the output is:

```
4
```


334598.1893896.qx3zqy7

LAB ACTIVITY | 24.3.1: LAB: Max of 2 | 10 / 10

main.py

```
1 Loading latest submission...
```

Develop mode | **Submit mode**

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → **main.py** (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

Retrieving signature

24.4 LAB: Max of 3

Write a program that takes in three integers and outputs the largest value.

Ex: If the input is:

```
1
2
3
```

the output is:

```
3
```


LAB ACTIVITY 24.4.1: LAB: Max of 3 10 / 10

main.py

```
1 Loading latest submission...
```

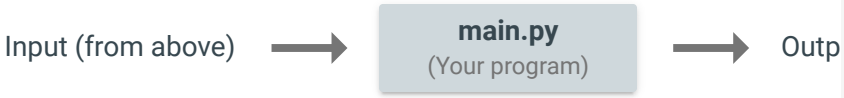
Develop mode | Submit mode

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program



Program output displayed here

Coding trail of your work What is this?

Retrieving signature

24.5 LAB: Warm up: Automobile service cost

(1) Prompt the user for an automobile service. Output the user's input. (1 pt)

Ex:

```
Enter desired auto service:
Oil change
You entered: Oil change
```

(2) Output the price of the requested service. (4 pts)

Ex:

```
Enter desired auto service:
Oil change
You entered: Oil change
Cost of oil change: $35
```

The program should support the following services (all integers):

- Oil change -- $35
- Tire rotation -- $19
- Car wash -- $7

If the user enters a service that is not listed above, then output the following error message:


```
Error: Requested service is not recognized
```


LAB ACTIVITY | 24.5.1: LAB: Warm up: Automobile service cost | 5 / 5

main.py

```
1 Loading latest submission...
```

Develop mode | **Submit mode**

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → **main.py** (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

Retrieving signature

24.6 LAB*: Program: Automobile service invoice

(1) Output a menu of automotive services and the corresponding cost of each service. (2 pts)

Ex:

```
Davy's auto shop services
Oil change -- $35
Tire rotation -- $19
Car wash -- $7
Car wax -- $12
```

(2) Prompt the user for two services from the menu. (2 pts)

Ex:

```
Select first service:
Oil change
Select second service:
Car wax
```


(3) Output an invoice for the services selected. Output the cost for each service and the total cost. (3 pts)

```
Davy's auto shop invoice
```

```
Service 1: Oil change, $35
Service 2: Car wax, $12

Total: $47
```


(4) Extend the program to allow the user to enter a dash (-), which indicates no service. (3 pts)

Ex:

```
Davy's auto shop services
Oil change -- $35
Tire rotation -- $19
Car wash -- $7
Car wax -- $12

Select first service:
Tire rotation
Select second service:
-

Davy's auto shop invoice

Service 1: Tire rotation, $19
Service 2: No service

Total: $19
```


LAB ACTIVITY | 24.6.1: LAB*: Program: Automobile service invoice | 4 / 10

main.py


```
1 Loading latest submission...
```

Develop mode | Submit mode

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → **main.py** (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

Retrieving signature

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