

Project-1

Problem 1 Output (Array Sorting)

Case-1

In [2]: `sort(3)`

3
7
9

Out[2]: [3, 7, 9]

Case-2

In [3]: `sort(4)`

2
7
9
1

Out[3]: [1, 2, 7, 9]

Case-3

In [4]: `sort(8)`

1
7
10
15
3
8
12
18

Out[4]: [1, 3, 7, 8, 10, 12, 15, 18]

Case-4

In [5]: `sort(19)`

1
3
5
5
15
18
21
5
5
6
8
10
12
16
17
17
20
25
28

Out[5]: [1, 3, 5, 5, 5, 5, 6, 8, 10, 12, 15, 16, 17, 17, 18, 20, 21, 25, 28]

Problem 2a Output (Ala-carte Multiplication)

Case-1

```
In [2]: multiply(7000 , 7294)  
51058000
```

Case-2

```
In [3]: multiply(25 , 5038385)  
125959625
```

Case-3

```
In [4]: multiply(-59724 , 783)  
- 46763892
```

Case-4

```
In [5]: multiply(8516 , -82147953548159344)  
- 699571972416124973504
```

Case-5

```
In [6]: multiply(45952456856498465985 , 98654651986546519856)  
4533423639104649634397093450504343098160
```

Case-6

```
In [7]: multiply(-45952456856498465985 , -98654651986546519856)  
4533423639104649634397093450504343098160
```

Problem 2b Output (Rectangle Multiplication)

Case-1

```
In [2]: test(7000 , 7294)
```

51058000

Case-2

```
In [3]: test(25 , 5038385)
```

125959625

Case-3

```
In [4]: test(-59724 , 783)
```

-46763892

Case-4

```
In [5]: test(8516 , -82147953548159344)
```

-699571972416124973504

Case-5

```
In [6]: test(45952456856498465985 , 98654651986546519856)
```

4533423639104649634397093450504343098160

Case-6

```
In [8]: test(-45952456856498465985 , -98654651986546519856)
```

4533423639104649634397093450504343098160
