Program 1:

```
Enter a number:6
216
```

Program 2:

```
Enter the number:6
216
Enter the number:-8
```

Program 3:

```
2
4
6
8
10
12
14
16
18
20
```

Program 4:

```
Enter the number:5
5
Enter the number:6
11
Enter the number:7
18
Enter the number:
```

Program 5:

```
Square of numbers: 100
```

Program 6:

```
==============
11
12
13
```

Program 7:

```
x: 10
y: 15
```

Program 8:

```
banana
['apple', 'orange', 'cherry']
('apple', 'orange', 'cherry')
```

Program 9:

```
intersection: {1, 2, 4}
union: {1, 2, 3, 4, 5, 6, 8}
Difference: {3, 5}
{1, 2, 3, 4, 5, 10}
{1, 2, 6, 8}
The element present in set1
```

Program 10:

```
8
{5, 7, 8, 10, 12, 18, 21}
```

Program 11:

```
{1, 2, 4, 7, 9}
uniqe elements from the orginial list: [1, 2, 4, 7, 9]
Intersection of set1 and set2: {9, 7}
Union of set1 and set2: {1, 2, 4, 5, 6, 7, 8, 9}
```

Program 12:

```
[10, 20, 30, 40, 50, 60]
(10, 20, 30, 40, 50, 60)
{40, 10, 50, 20, 60, 30}
```