

S.No: 8	Exp. Name: Program to perform union, intersection, and difference operations on sets.	Date:2025-03-26
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Aim:

Write a Python program to perform union, intersection and difference operations on Set A and Set B.

Input Format:

- **Set A:** The first input prompts for a space-separated list of integers for Set A.
- **Set B:** The second input prompts for a space-separated list of integers for Set B.

Output Format:

- **Union:** The first line should display the union of both sets.
- **Intersection:** The second line should display the intersection of both sets.
- **Difference:** The third line should display the difference between Set A and Set B.

Note:

- Please refer to the visible test cases for better understanding.

Source Code:

setoperations.py

```
a = list(map(int,input("Set A: ").split()))
A = set(a)
b = list(map(int,input("Set B: ").split()))
B = set(b)
uni = A|B
print("Union: ",uni)
inter = A&B
print("Intersection: ",inter)
diff = A-B
print("Difference: ",diff)
# Write your code here to perform different operations
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Set A: 0 2 4 6 8
Set B: 1 2 3 4 5
Union: {0, 1, 2, 3, 4, 5, 6, 8}
Intersection: {2, 4}
Difference: {0, 8, 6}

Test Case - 2
User Output
Set A: 10 11 22 33 44 55
Set B: 15 16 17 18 19 14
Union: {33, 10, 11, 44, 14, 15, 16, 17, 18, 19, 22, 55}
Intersection: set()

Difference: {33, 10, 11, 44, 22, 55}