

## → COMPARATOR

27

```
bool cmp (PAIR<INT>, INT> A, PAIR<INT>, INT> B)
```

```
{
```

→ Is order mai change use return kardo

```
if (A.FIRST != B.FIRST)
```

```
{
```

```
    return A.FIRST < B.FIRST;
```

```
}
```

```
return A.SECOND > B.SECOND;
```

```
}
```

→ comparator for an array to return in decreasing order

```

bool CMP-2 (int A, int B)
{
    return A > B;
}

```

```

int main()
{

```

```
    int N;
```

```
    cin >> N;
```

```
    vector<pair<int, int>> V-P(N);
```

```
    for (int i=0; i < N; i++)
```

```
    {
```

```
        cin >> V-P[i].first >> V-P[i].second;
```

```
    }
```

→ Let us say we want to sort this pair, with 1st no. in ↑ing order and if 1st no. of two pairs are same then ↓ing order according to 2nd no.

For this type of operation we have to define a comparator function as a 3rd argument in sort() function.

```
sort(V-P.begin(), V-P.end(), CMP);
```

```
for (auto &x : V-P)
```

```
{
```

```
    cout << x.first << " " << x.second  
    << "\n";
```

```
}
```

```
return 0;
```

```
}
```



→ Input

6

4 3

5 5

5 3

2 5 6

7 9

8 5

→ Output

4 3

5 5

5 3

7 9

8 5

2 5 6