

```
GraphSort[a_List, b_List] := GraphSort[a, b] =  
  If[a[[1]] === b[[1]],  
    If[a[[2]] === b[[2]],  
      Order[a[[3]], b[[3]] ≥ 0,  
      SortedQ[{a[[2]], b[[2]]}],  
      SortedQ[{a[[1]], b[[1]]}];
```