

```
# Union Find
```

```
class UnionFind:
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```
    def __init__(self) -> None:
```

```
        self.id = {}
```

```
    def find(self, x):
```

```
        y = self.id.get(x,x)
```

```
        if y != x:
```

```
            self.id[x] = y = self.find(y)
```

```
        return y
```

```
    def union(self,x,y):
```

```
        self.id[self.find(x)] = self.find(y)
```