Tri fusion

In [ ]:
```
def partage(liste):
    l1=[]
    l2=[]
    for k in range(len(liste)//2):
        l1.append(liste[k])
    for k in range(len(liste)//2,len(liste)):
        l2.append(liste[k])
    return l1,l2
```

In [ ]:
```
liste=[38,27,43,3,9,82,10]
l1,l2=partage(liste)
```

In [ ]:
```
def fusion(l1,l2):
    ind1=0
    ind2=0
    l = []
    while ind1<len(l1) and ind2<len(l2):
        if l1[ind1]<l2[ind2]:
            l.append(l1[ind1])
            ind1+=1
        else:
            l.append(l2[ind2])
            ind2+=1
    if ind1==len(l1):
        for k in range(ind2,len(l2)):
            l.append(l2[k])
    else:
        for k in range(ind1,len(l1)):
            l.append(l1[k])
    return l
```

In [ ]:
```
print(fusion(l1,l2))
```

In [ ]:
```
def tri_fusion(liste):
    long = len(liste)
    if long <= 1:
        return liste
    else:
        l1, l2 = partage(liste)
        l1 = tri_fusion(l1)
        l2 = tri_fusion(l2)
    return fusion(l1,l2)
```

In [ ]:
```
print(tri_fusion(liste))
```