void SelectSort(int \*a, int length)

{

int i,j,tmp,index;

for(i=0; i<length-1; i++)

{

tmp = a[i];

index = i;

for(j=i+1; j<length;j++)

{

if(a[j]<tmp)

{

tmp = a[j];

index = j;

}

}

if(index != i)

{

a[index] = a[i];

a[i] = tmp;

}

}

}

void InsertSort(int \*a, int length)

{

int i,j,tmp;

for(i=1; i<length; i++)

{

tmp = a[i];

for(j=i-1; j>=0; j--)

{

if(tmp < a[j])

{

a[j+1] = a[j];

}

else break;

}

a[j+1] = tmp;

}

}

void BottomUpMerge(int \*a, int length)

{

int size = 1;

while(size < n)

{

int size\_last = size;

size = 2\*size;

int index = 0;

while(index + size <= length)

{

merge(a, index, index+size\_last-1, index+size-1);

index = index + size;

}

if(index + size\_last < n)

{

merge(a, index, index+size\_last-1, length-1);

}

}

}