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Function mergesort (A)
    if n < 2 then
        return;
    end
    else
        mid=n/2;
        left[]=0 array of size mid;
        right[]=0 array of size n-mid;
        for i = 0 to mid-1 do
            left[i]=A[i];
        end
        for i = mid to n-1 do
            right[i-mid]=A[i];
        end
        mergesort(left);
        mergesort(right);
        merge(left,right,A);
    end
Function merge (left,right,A)
    nlen=length(left);
    nrig=length(right);
    i=0,j=0,k=0;
    while i<nlen and j<nrig do
        if left[i]<=right[j] then
            A[k]=left[i];
            k=k+1;
            i=i+1;
        end
        else
            A[k]=right[j];
            j=j+1;
            k=k+1;
        end
    end
    while i<nlen do
        A[k]=left[i];
        i=i+1;
        k=k+1;
    end
    while j<nrig do
        A[k]=right[j];
        k=k+1;
        j=j+1;
    end
```