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#include <stdio.h>
#include <stdlib.h>

void moveToEnd(int *arrMplusN, int size)
{
    int index, right = size-1;
    for(index = size-1; index >=0; index--)
        if(arrMplusN[index])
            arrMplusN[right--] = arrMplusN[index];
}

void merge(int *arrMplusN, int *arrN, int sizeM, int sizeN)
{
    int indexM = sizeN, indexN = 0, final = 0;
    while(final < sizeM + sizeN)
    {
        if ((indexM < (sizeM + sizeN) && arrMplusN[indexM] <= arrN[indexN])
            || (indexN == sizeN))
            arrMplusN[final++] = arrMplusN[indexM++];
        else
            arrMplusN[final++] = arrN[indexN++];
    }
}

void printMplusN(int *arrMplusN, int size)
{
    for(int index = 0; index < size; index++)
        printf("%d ", arrMplusN[index]);
}

int main()
{
    int sizeM, sizeN;
    // O Represents array index value is empty
    int arrMplusN[] = {3, 9, 0, 0, 14, 0, 16, 0, 25};
    int arrN[] = {6, 8, 10, 30};
    sizeN = sizeof(arrN) / sizeof(arrN[0]);
    sizeM = sizeof(arrMplusN) / sizeof(arrMplusN[0]) - sizeN;

    //move the m elements to end of arrMplusN
    moveToEnd(arrMplusN, sizeM+sizeN);

    //merge two arrays
    merge(arrMplusN, arrN, sizeM, sizeN);

    printMplusN(arrMplusN, sizeM+sizeN);
    return 0;
}

```

Time complexity:  $O(m + n)$   
Space complexity:  $O(1)$