

# Folding

## Description

Given an array of values, your task is to find the resultant array after 'folding' the array. Folding an array is the process of generating an array of half the size of the original (rounding up), whose elements are the sum of each element equidistant from the middle element of the input array.

If the array given is of odd size, after folding, the last element of the array should be the same as the middle element of the input array.

## Input

Input consists of an integer **t**, the number of test cases; then for each test case, there will be three inputs:

An integer **n**, the number of elements in the array to fold; then **f**, the number of folds to perform on the array; then a sequence of **n** integer elements. You may assume that **t** and **n** are both non-negative integers.

## Output

The resulting array after folding the input array **f** times.

### Sample Input

2  
7 1  
1 2 3 4 5 6 7

7 2  
1 2 3 4 5 6 7

### Sample Output

8 8 8 4  
12 16