

Chocolate Distribution Problem

Given an array **A[]** of positive integers of size **N**, where each value represents the number of chocolates in a packet. Each packet can have a variable number of chocolates. There are **M** students, the task is to distribute chocolate packets among **M** students such that :

1. Each student gets **exactly** one packet.
2. The difference between maximum number of chocolates given to a student and minimum number of chocolates given to a student is minimum.

Example 1:

Input:

N = 8, M = 5

A = {3, 4, 1, 9, 56, 7, 9, 12}

Output: 6

Explanation: The minimum difference between maximum chocolates and minimum chocolates is $9 - 3 = 6$ by choosing following M packets :{3, 4, 9, 7, 9}.

Example 2:

Input:

N = 7, M = 3

A = {7, 3, 2, 4, 9, 12, 56}

Output: 2

Explanation: The minimum difference between maximum chocolates and minimum chocolates is $4 - 2 = 2$ by choosing following M packets :{3, 2, 4}.

Your Task:

You don't need to take any input or print anything. Your task is to complete the function **findMinDiff()** which takes array A[], N and M as input parameters and returns the minimum possible difference between maximum number of chocolates given to a student and minimum number of chocolates given to a student.

Expected Time Complexity: $O(N \cdot \log(N))$

Expected Auxiliary Space: $O(1)$