

# 1497. Check If Array Pairs Are Divisible by k

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Given an array of integers `arr` of even length `n` and an integer `k`.

We want to divide the array into exactly  $n / 2$  pairs such that the sum of each pair is divisible by `k`.

Return *True* If you can find a way to do that or *False* otherwise.

## Example 1:

```
Input: arr = [1,2,3,4,5,10,6,7,8,9], k = 5
Output: true
Explanation: Pairs are (1,9), (2,8), (3,7), (4,6) and (5,10).
```

## Example 2:

```
Input: arr = [1,2,3,4,5,6], k = 7
Output: true
Explanation: Pairs are (1,6), (2,5) and (3,4).
```

## Example 3:

```
Input: arr = [1,2,3,4,5,6], k = 10
Output: false
Explanation: You can try all possible pairs to see that there is no way to
divide arr into 3 pairs each with sum divisible by 10.
```

## Example 4:

```
Input: arr = [-10,10], k = 2
Output: true
```

## Example 5:

```
Input: arr = [-1,1,-2,2,-3,3,-4,4], k = 3
Output: true
```

```
def canArrange(self, arr: List[int], k: int) -> bool:
    freq = collections.defaultdict(int)
    for ele in arr:
        rem = ele%k
```

```
    if rem in freq:
        freq[rem] = freq[rem]+1
    else:
        freq[rem] = 1

for ele in arr:
    rem = ele%k
    if rem==0:
        if freq[rem]%2!=0:
            return False
    elif 2*rem==k:
        if freq[rem]%2!=0:
            return False
    else:
        if freq[k-rem]!=freq[rem]:
            return False
return True
```