Triplet

Given an array of integer, check if there is a triplet that sum of equals to an integer x

Ex1 arr = [2, 4, 6, 8, 12] X = 18 True

arr = [2, 4, 6, 8, 12] 4 + 6 + 8 = 18

Ex2 arr = [2, 4, 6] X = 11 false

No combination of above elements results to X

Idea-1 : use three nested loops

```
def Triple (arr, X):
    n = len(arr)
    for i in range(n)
        for j in range(i+1, n)
            for k in range(j+1, n)
                if arr[i] + arr[j] + arr[k] == X :
                    return True
    return false
```

Time complexity = $O(N^3)$

arr = [2, 4, 6, 3, 9, 11] (indices 0, 1, 2, 3, 4, 5)

i	arr[i]	j	arr[j]	k	arr[k]	sum(arr[i], arr[j], arr[k]
0	2	1	4	2	6	2 + 4 + 6 = 12
0	2	1	4	3	3	2 + 4 + 3 = 9
0	2	1	4	4	9	2 + 4 + 9 = 15

X = 15

arr = [2, 4, 6, 3, 9, 11]

Sum = 15

return