Pair with Given Sum in C++

```
#include <iostream>
#include <vector>
using namespace std;
bool pairWithGivenSum(const vector<int>& arr, int x)
  int left = 0, right = arr.size() - 1;
  while (left < right) {
     if (arr[left] + arr[right] == x) {
       return true;
     } else if (arr[left] + arr[right] > x) {
       right--;
     } else {
       left++;
  return false;
int main() {
  vector<int> arr = \{10, 7, 8, 20, 12\};
  int x = 32;
  cout << std::boolalpha << pairWithGivenSum(arr,</pre>
x) \ll endl;
  return 0;
```

true

Dry Run After Sorting

Sorted array: $\{7, 8, 10, 12, 20\}$ Target x = 32

left (val)	right (val)	Sum	Action
7	20	27	Increase left
8	20	28	Increase left
10	20	30	Increase left
12	20	32	🗞 Match → return true

\checkmark Output:

true