9.1 LAB: Even or odd

This section has been set as optional by your instructor.

Input: an integer number *num*
Desired Output: "even" if the number is even, and "odd" if the number is odd

Examples:

- the input `2` should output "even"
- the input `49` should output "odd"

The program currently outputs incorrect values for the two test cases above.

Debug and correct the program below.

602398.4584902.qx3zqy7

LAB ACTIVITY | 9.1.1: LAB: Even or odd | 0 / 10

main.cpp — Load default template...

```
#include <iostream>
using namespace std;

int main() {
  int num;
  cin >> num;
  bool flag = (num % 2 != 0);
  if (flag) {
    cout << "even" << endl;
  } else {
    cout << "odd" << endl;
  }
  return 0;
}
```


Develop mode | **Submit mode**

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → main.cpp (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

History of your effort will appear here once you begin working on this zyLab.

Solution Show

9.2 LAB: Contains seven

This section has been set as optional by your instructor.

Input: an integer array `userVals` of length `NUM_ELEMENTS`
Desired Output: "found" if there one or more 7s in the array. "not found" if there are no sevens

Examples:

- the input `2 3 4 1 5` should output "not found"
- the input `4 1 9 0 7` should output "found"
- the input `8 7 9 0 1` should output "found"

The program currently outputs "not found" for `8 7 9 0 1` instead of the expected "found".

Debug and correct the program below.

602398.4584902.qx3zqy7

LAB ACTIVITY | 9.2.1: LAB: Contains seven 0 / 10

main.cpp Load default template...

```
#include <iostream>
using namespace std;

int main() {

  const int NUM_ELEMENTS = 5;
  int userVals[NUM_ELEMENTS];
  for (int i = 0; i < NUM_ELEMENTS; ++i) {
    cin >> userVals[i];
  }

  bool found = false;
  for (int i = 0; i < NUM_ELEMENTS; i++) {
    if (userVals[i] == 7) {
      found = true;
```


Develop mode | Submit mode

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → **main.cpp** (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

History of your effort will appear here once you begin working on this zyLab.

Solution Show

9.3 LAB: Two sum

This section has been set as optional by your instructor.

Input: an integer `target` followed by an integer array `userVals` of length `NUM_ELEMENTS`
Desired Output: "found" if there are two distinct elements in `userVals` that add up to `target` (otherwise, "not found")

Examples:

- the input `4 1 8 3 7 4` represents `target = 4` and array `1 8 3 7 4`. This input should output "found" because 1 + 3 sums to 4.
- the input `6 1 8 3 7 4` represents `target = 6` and array `1 8 3 7 4`. This input should output "not found" because there are not two distinct entries that sum to 6.
- the input `6 1 8 3 7 3` represents `target = 6` and array `1 8 3 7 3`. This input should output "found" because the 3 in the middle and the 3 at the end each add up to 6.

The program currently outputs "found" for `6 1 8 3 7 4` instead of the expected "not found".

Debug and correct the program below.

602398.4584902.qx3zqy7

LAB ACTIVITY 9.3.1: LAB: Two sum 0 / 10

main.cpp Load default template...

```
#include <iostream>
using namespace std;

int main() {

  const int NUM_ELEMENTS = 5;
  int userVals[NUM_ELEMENTS];
  int targetSum;

  cin >> targetSum;

  for (int i = 0; i < NUM_ELEMENTS; ++i) {
    cin >> userVals[i];
  }

```

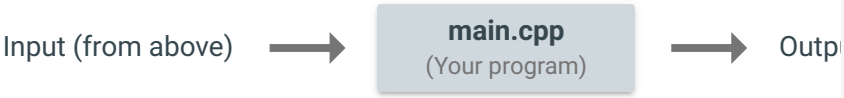
Develop mode | Submit mode

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program



Program output displayed here

Coding trail of your work What is this?

```
History of your effort will appear here once you begin working
on this zyLab.
```

Solution Show

9.4 LAB: Max consecutive ones

This section has been set as optional by your instructor.

Input: an integer array `userVals` of length `NUM_ELEMENTS`
Desired Output: the number of max consecutive 1s that appear in the array.

Examples:

- the input `5 2 1 1 1 4` should output 3
- the input `1 1 1 1 1 1` should output 6
- the input `1 2 1 1 3 5` should output 2 (because of the two 1s indexes 2 & 3).

The program currently outputs 0 for `1 1 1 1 1 1` instead of the expected 6.

Debug and correct the program below.

602398.4584902.qx3zqy7

LAB ACTIVITY | 9.4.1: LAB: Max consecutive ones | 0 / 10

main.cpp

Load default template...


```
#include <iostream>
using namespace std;

int main() {

  const int NUM_ELEMENTS = 6;
  int userVals[NUM_ELEMENTS];
  for (int i = 0; i < NUM_ELEMENTS; ++i) {
     cin >> userVals[i];
  }

  int currentCount = 0;
  int maxCountSeenSoFar = 0;
  for (int i = 0; i < NUM_ELEMENTS; i++) {
     if (userVals[i] == 1) {
```

Develop mode | **Submit mode**

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → **main.cpp** (Your program) → Outp

Program output displayed here

Coding trail of your work What is this?

```
History of your effort will appear here once you begin working
on this zyLab.
```

Solution Show

9.5 LAB: Count and threshold

This section has been set as optional by your instructor.

Input: integer `target`, integer `threshold`, and integer array `userVals` of length `NUM_ELEMENTS`
Desired Output: "threshold met" if the integer `target` appears **at least** `threshold` times in `userVals`. Otherwise "threshold not met".

Examples:

- the input `2 3 1 2 2 4 2 2` represents target = 2, threshold = 3, and array 1 2 2 4 2 2. This input should output "threshold met" because 2 appears 4 times (and 4 >= threshold of 3).
- the input `1 2 1 2 1 1 2 1` represents target = 1, threshold = 2, and array 1 2 1 1 2 1. This input should output "threshold met" because 1 appears 4 times (and 4 >= threshold of 3).
- the input `91 2 32 92 91 34 92 95` represents target = 91, threshold = 2, and array 32 92 91 34 92 95. This input should output "threshold not met" because 91 appears only once.

The program currently outputs incorrect values for several test cases.

Debug and correct the program below. **NOTE: in the program below, there are several issues.** Fixing only some bugs may temporarily pass even less test cases, but keep it up until you find all issues!

602398.4584902.qx3zqy7

LAB ACTIVITY | 9.5.1: LAB: Count and threshold | 0 / 20

main.cpp Load default template...


```
1 #include <iostream>
2 using namespace std;
3
4 bool DetermineIfTargetCountMeetsThreshold(int arr[], int arrLength, int thresh
5   int count = 0;
6   for (int i = 0; i < arrLength; i++) {
7     if (arr[i] == target) {
8       count++;
```

```
    }
  }
  return count > threshold;
}

int main() {
```


Develop mode | **Submit mode**

Run your program as often as you'd like, before submitting for grading. Below, type any needed input values in the first box, then click **Run program** and observe the program's output in the second box.

Enter program input (optional)

If your code requires input values, provide them here.

Run program

Input (from above) → **main.cpp** (Your program) → Outp

Program output displayed here

Coding trail of your work [What is this?](#)

History of your effort will appear here once you begin working on this zyLab.

Solution **Show**

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