Q-13

Due No due date **Points** 15 **Questions** 17 **Time Limit** 30 Minutes **Allowed Attempts** Unlimited

Attempt History

	Attempt	Time	Score
KEPT	Attempt 3	10 minutes	14 out of 15
LATEST	Attempt 3	10 minutes	14 out of 15
	Attempt 2	11 minutes	14 out of 15
	Attempt 1	13 minutes	14 out of 15

⚠ Correct answers are hidden.

Submitted Jul 21 at 10:22pm

Question 1   1.5 / 1.5 pts

Match each item with the correct loop form below.

Indefinite limit loop that reduces its input	while (n != 0) { n /= 2; }
Indefinite limit loop that uses successive approximations	while(abs(g1 − g2) >= EPSILON
Counter-controlled symmetric loop for producing a sequence of data	for (int i=12; i <= 19; i++) {. . .}
Indefinite data loop that uses raw input	while(cin.get(ch)) {. . .}
Counter-controlled asymmetric loop for processing characters	for (size_t i=0, len=s.size(); i < l
Iterator loop that may change its container	for (auto& e : col) {. . .}
Iterator loop that cannot change its container	for (auto e : col) {. . .}
Counter-controlled loop for processing substrings	for (size_t i=4, slen=4, len=s.siz
Indefinite data loop that uses formatted input	while(cin >> n) {. . .}

Question 2   1 / 1 pts

What happens when this code fragment runs?

```
istringstream in("12");
int n;
in >> n;
```

- ○ It sets an error state in `in`.
- ○ It throws a runtime exception
- ⦿ n is set to 12
- ○ It compiles, but fails to link
- ○ It does not compile.
- ○ None of these

Question 3   1 / 1 pts

After writing data to an `ostringstream` object named `os`, you can retrieve the `string` it contains by using:

- ○ None of these
- ○ `os.to_string()`
- ⦿ `os.str()`
- ○ `to_string(os)`
- ○ `static_cast<string>(os);`

Question 4   1.5 / 1.5 pts

Which of the following loop patterns are used here?

```
int upper = 0;
char ch;
while (in.get(ch))
{
    if (ch >= 'A' && ch <= 'Z')
        upper++;
}
```

- ☑ data loop
- ☐ iterator or range loop
- ☐ loop-and-a-half
- ☐ counter-controlled loop
- ☐ sentinel loop
- ☑ inline test
- ☐ limit loop
- ☐ primed loop

Question 5 0.5 / 0.5 pts

In the *loop-and-a-half*, you use a `break` statement to exit the loop when the sentinel is found.

- ◉ True
- ○ False

Question 6 0.5 / 0.5 pts

A loop that reads data until the input stream signals that it is done is called a sentinel loop.

- ○ True
- ◉ False

Question 7 0.5 / 0.5 pts

A loop that reads data until some special value is found is called a data loop.

- ○ True
- ◉ False

Question 8 1.5 / 1.5 pts

Match each item with the correct standard header below.

Read and write characters to memory using streams	sstream
Connect a disk file to an input or output stream.	fstream
Use the predefined stream objects `cin` and `cout`	iostream
Determine the category of a character	cctype
Modify the way that memory is converted to characters on input or output	iomanip

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Question 9 1 / 1 pts

What happens when this code fragment runs in C++ 11?

```
cout << stoi("one") << endl;
```

- ○ It does not compile.
- ○ None of these
- ○ It sets an error state in `cout`.

○ `stoi()` returns 0

○ It compiles, but fails to link

◉ It throws a runtime exception

Question 10   1 / 1 pts

What happens when this code fragment runs?

```
cout << stoi("12") << endl;
```

○ It throws a runtime exception

○ It does not compile.

○ It compiles, but fails to link

○ None of these

○ It sets an error state in cout.

◉ `stoi()` returns 12

Question 11   0 / 1 pts

What happens with the following section of code?

```
cout << "Enter 1, 2 or 3: ";
int n;
cin >> n;
#if n == 1
    cout << "You entered 1" << endl;
#elif n == 2
    cout << "You entered 2" << endl;
#elif n == 3
    cout << "You entered 3" << endl;
#else
    cout << "Invalid value" << endl;
#endif
```

○ Does not compile

○ Compiles and prints the correct value entered by the user.

○ Compiles, but only prints "Invalid value"

◉ Compiles, but always print "You entered 1"

Question 12   0.5 / 0.5 pts

The directives `#if defined(symbol)` and `#ifdef symbol` mean, essentially, the same thing.

◉ True

○ False

Question 13   0.5 / 0.5 pts

The predefined constant `__cpluplus` indicates which version of the C++ standard is being used.

◉ True

○ False

Question 14   0.5 / 0.5 pts

Variables tested with the `#if` preprocessor directive are created using `#define`.

◉ True

○ False

Question 15   1 / 1 pts

What happens when you execute the (erroneous) line:

```
bool ok = 2 + 2 == 5;
```

○ The program prints an error message and the program continues

○ An exception is thrown because 2 + 2 does not equal 5

○ The program prints an error message and terminates

● Nothing happens. The variable ok is set to false.

○ The code does not compile, since 2 + 2 is not equal to 5

Question 16

1 / 1 pts

Assume that you have the following code:

```
istreamstring in("one");
int n;
```

Which of these (erroneous) statements cause the program to terminate?

☐ `cout << sqrt(-1);`

☐ `in >> n;`

☑ `cout << stoi("one");`

☑ `assert(2 + 2 == 5);`

Question 17

0.5 / 0.5 pts

The standard library version of `sqrt(-2)` throws a runtime exception because there is no possible answer.

○ True

● False