Midterm 2 Study Guide

Due No due date Points 25 Questions 25 Time Limit 30 Minutes Allowed Attempts Unlimited

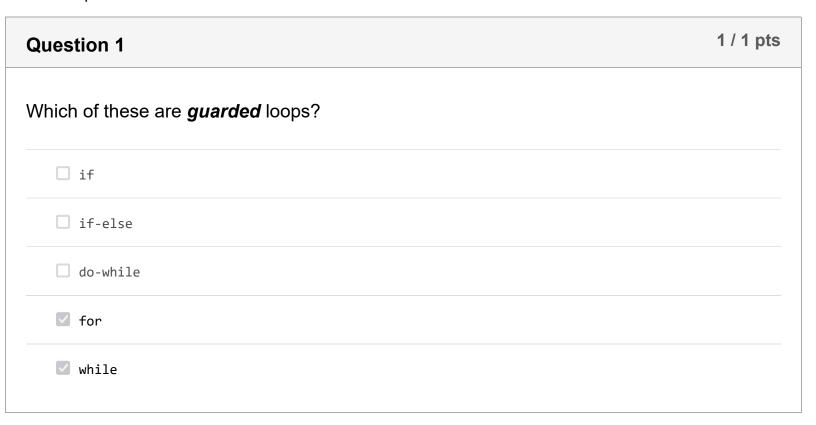
Take the Quiz Again

Attempt History

	Attempt	Time	Score	
LATEST	Attempt 1	30 minutes	18.33 out of 25	

① Correct answers are hidden.

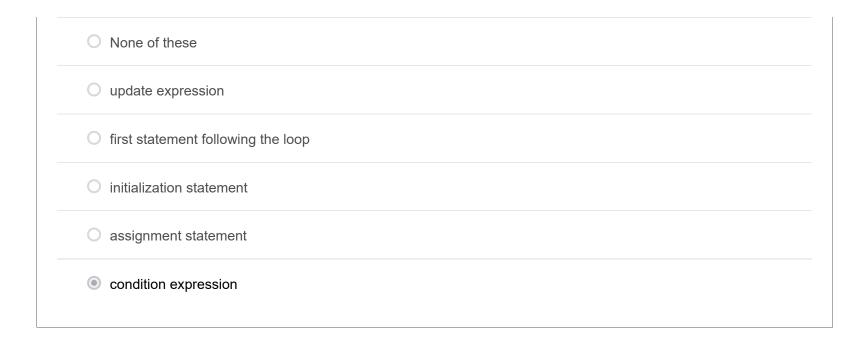
Submitted Jun 27 at 5:57pm





1 / 1 pts

Question 3	1 / 1 pts
In the classic for loop, which portion of code is analogous to an if statement?	

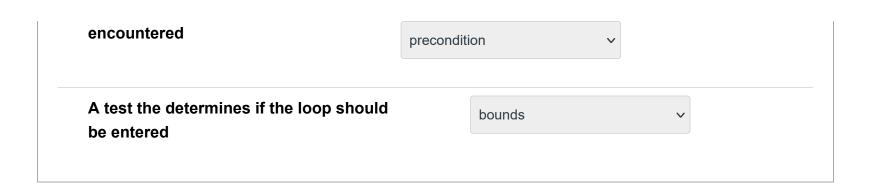


Question 4	1 / 1 pts
An <i>unguarded</i> loop is also known as a <i>test-at-the-top</i> loop.	
O True	
False	

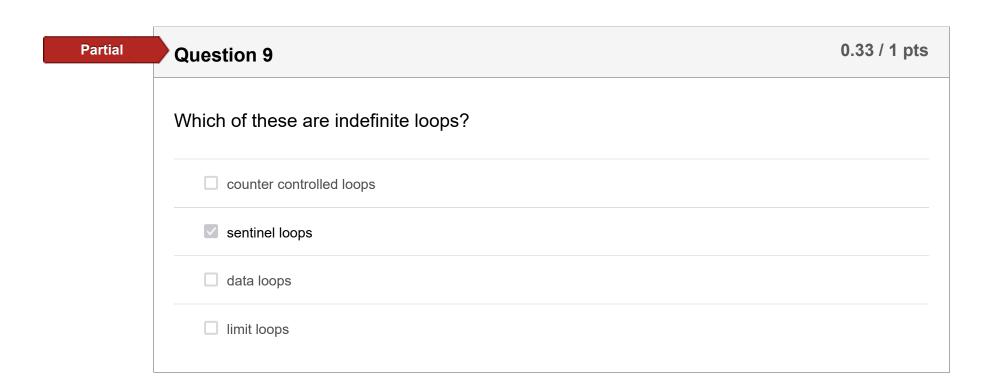
Question 5	1 / 1 pts
How many times is this loop entered ? (That is, how many times is i printed?)	
<pre>for (int i = 1; i <= 10; i++) cout << i; cout << endl;</pre>	
O 9	
O Never	
O 11	
10	

Question 6		1 / 1 pts
Match each item with the correct statement below	W.	
Actions that occur after the loop is complete	postcondition	v
Actions occurring inside the loop's body	operation	v
Actions that occur before the loop is		





Question 7	1 / 1 pts
In the classic <i>for</i> loop, loop control variables going from 0 to less-than n are said employ:	to
necessary bounds	
O intentional bounds	
O symmetric bound	
asymmetric bounds	
O None of these	



Question 10 1 / 1 pts

```
What is the output of the following?

bool token1 = true;
while (token1)
{
    for (int i = 0; i < 5; i++)
    {
        cout << "Hello there" << endl;
    }
    token1 = false;
}

    "Hello there" will be displayed infinite times.

    No output because of compilation error.

    No output.

    "Hello there" will be displayed 5 times.
```

Question 11	1 / 1 pts
Which prototypes in the following header file contain errors?	
#ifndef EXAMPLE_H	
#define EXAMPLE_H	
<pre>#include <string></string></pre>	
<pre>string f1(int a); int f2(double); void f3(std::string& s, int n); double f4(); #endif</pre>	
□ None of these	
□ <i>f</i> 4	
□ <i>f</i> 3	
\square f 2	
✓ f1	

```
Question 12

What prints here?
```



<pre>int i = 5; while (i); cout << i; cout << endl;</pre>	
O 4321	
O Syntax error: i is not a Boolean expression	
O 54321	
O 43210	
Infinite loop	

Incorrect	Question 13	0 / 1 pts
	Parameter names are optional in the function prototype.	
	O True	
	False	

Incorrect Question 14 0 / 1 pts



Assume that the input is 4 4 3 2 5. What will print?

```
int i = 1;
int n;
cin >> n;
do
{
    i++;
    cin >> n;
}
while (n % 2);
cout << i << endl;

    Does not compile
    infinite loop

    4
```

What is the output of the following?
int i = 1;
int sum = 0;
while (i <= 13)
{
 sum = sum + i;
 i = i + 3;
}
cout << "The value of sum is " << sum;

 The value of sum is 22

 The value of sum is 35

 The value of sum is 0</pre>

Question 16	1 / 1 pts
Different functions that have the same name, but take different arguments, are sa	id to be:
O covariant	
O default	
overloaded	
Oderived	
Overridden	

Incorrect Question 17 0 / 1 pts



Question 18	1 / 1 pts
Which line runs the prt program and stores its output in a new file named x .data	n?
○ ./prt < x.data	
● ./prt > x.data	
O ./prt >1 x.data	
O None of these	
O ./prt >> x.data	
O ./prt << x.data	

Question 19	1 / 1 pts
When running a filter program, you can send all output from cout to a file using the redirection symbol.	e >
True	
O False	



Question 20	1 / 1 pts

Examine the code below:

```
int mystery1(int n, int a, int b) {
    if (n == 0) return a;
    if (n == 1) return b;
    return mystery1(n - 1, b, a + b);
}
int mystery2(int n) {
    return mystery1(n, 0, 1);
}

The algorithm implemented is Fibonacci

    mystery1 is a recursive helper

    mystery1 is a recursive wrapper

    if (n==1) is a base case

mystery2 is a recursive wrapper around the recursive helper mystery1. Together they implement the Fibonacci sequence in an efficient manner. mystery2 will not complete for any negative inputs.
```

Unanswered

Question 21

0 / 1 pts

Examine the code below and match the statements following it.

```
int mystery1(int n, int a, int b) {
   if (n == 0) return a;
   if (n == 1) return b;
   return mystery1(n - 1, b, a + b);
}
int mystery2(int n) {
   return mystery1(n, 0, 1);
}
```

mystery2 is a recursive wrapper	V
mystery2 completes for all possible inputs	V
if (n == 0) is a recursive case	

These functions illustrate how inefficient recursion is.

mystery2 is a recursive wrapper around the recursive helper mystery1. Together they implement the Fibonacci sequence in an efficient manner. mystery2 will not complete for any negative inputs.

Incorrect Question 22 0 / 1 pts

Examine the code below:

```
int mystery1(int n, int a, int b) {
   if (n == 0) return a;
   if (n == 1) return b;
   return mystery1(n - 1, b, a + b);
}
int mystery2(int n) {
   return mystery1(n, 0, 1);
}
```

- This is an inefficient way to implement this algorithm
- mystery2 completes for all inputs
- mystery2 is a recursive wrapper
- \Box if (n == 0) is a base case

mystery2 is a recursive wrapper around the recursive helper mystery1. Together they implement the Fibonacci sequence in an efficient manner. mystery2 will not complete for any negative inputs.

Question 23	1 / 1 pts
The C++ term for what is called a <i>superclass</i> in other languages is <i>derived</i> class	
O True	
False	



The file grades.txt contains lines of text that look like this:

Smith 94
Jones 75
...
Each line of text contains the student's name (a single word) and an integer score. What is the legal way of reading one student's information, given the following code?

string name;
int score;
ifstream in("grades.txt");

,,,	
O None of these	
O in << name << score;	
<pre>O getline(in, name); in >> score;</pre>	
<pre> in >> name >> score; </pre>	
<pre> getline(in, name); getline(in, score); </pre>	

Assume the user types "brown cow" when this code runs. What prints? char c; cout.put(cin.get(c)); brown cow true (or 1) Does not compile

