## 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
KEPT	Attempt 11	29 minutes	25 out of 25
LATEST	Attempt 13	25 minutes	24 out of 25
	Attempt 12	30 minutes	22 out of 25
	Attempt 11	29 minutes	25 out of 25
	Attempt 10	30 minutes	20.17 out of 25
	Attempt 9	29 minutes	20 out of 25
	Attempt 8	29 minutes	20.5 out of 25
	Attempt 7	28 minutes	21 out of 25
	Attempt 6	24 minutes	21 out of 25
	Attempt 5	20 minutes	17.83 out of 25
	Attempt 4	30 minutes	17.67 out of 25
	Attempt 3	22 minutes	16 out of 25
	Attempt 2	16 minutes	16.17 out of 25
	Attempt 1	30 minutes	18.33 out of 25

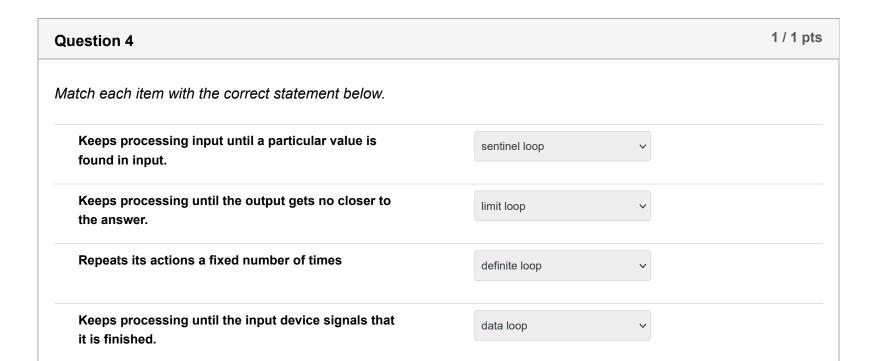
1 Correct answers are hidden.

Submitted Jun 28 at 2:12pm

Question 1	1 / 1 pts
Loops are used to implement iteration in C++.	
True	
○ False	

Question 2	1 / 1 pts
A <i>guarded</i> loop is also known as a <i>test-at-the-bottom</i> loop.	
O True	
False	

Question 3	1 / 1 pts
In the classic for loop, which portion of code is executed after the last statement in the loop body?	
O assignment statement	
O initialization statement	
O None of these	
first statement following the loop	
O condition expression	
• update expression	



Question 5	1 / 1 pts
Below is the illustration from the loop building strategy. The <i>highlighted lines</i> represent.  Add one to (or increment) the counter variable:  Given: the variable str is a string (may be empty)  Create the counter variable, initialized to -1	
If the variable str has any characters then {     Set counter to 0     Create the variable current-character as a character     Place the first character in str into current-character     While more-characters and current-character not a period {	
Add one to (or increment) the counter variable Store the next character from str in current-character  If current-character is a period then Add one to the counter to account for the period.  Else Set counter to -2	
} If counter is -1 the string was empty Else if counter is -2 there was no period	
O loop postcondition	
O loop bounds	
<ul> <li>bounds precondition</li> </ul>	
goal operation	
O goal precondition	
O advancing the loop	

Question 6	1 / 1 pts
In an <i>unguarded</i> loop, the loop actions may never be executed.	
O True	
False	

Question 7	1 / 1 pts
The highlighted section below illustrates. current-character not a period:	



Question 8	1 / 1 pts
How many times is this loop entered? (That is, how many times is i printed?)  for (int i = 0; i < 10; i++)     cout << i;     cout << endl;	
<ul><li>10</li></ul>	
O 9	
O Never	
O 11	

Question 9			1 / 1 pts
Match each item with the correct question below.			
What must I change in the test to go to the next iteration?	advance the loop	V	
Can my loop reach its bounds?	necessary bounds	V	
Has my loop reached its goal?	loop postcondition	V	
What makes this loop quit?	loop bounds	<b>v</b>	

Question 10	1 / 1 pts
Arguments passed to a function that has a constant reference parameter must be:	





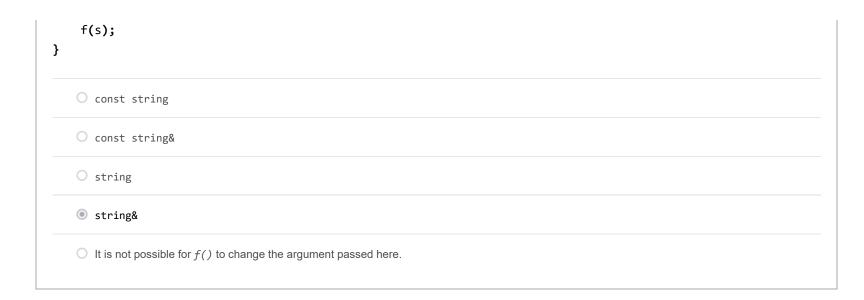
Question 11	1 / 1 pts
Which prototypes in the following header file contain errors?	
#ifndef EXAMPLE_H	
#define EXAMPLE_H	
#include <string></string>	
string f1(int a);	
<pre>int f2(double);</pre>	
<pre>void f3(std::string&amp; s, int n);</pre>	
double f4();	
#endif	
□ None of these	
$\square$ $f2$	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

Question 12	ots
If a prototype in a header file has a parameter that is a library type, the header file must #include the appropriate library header.	
True	
○ False	

Question 13	1 / 1 pts
Header files may contain the statement using namespace std;	
O True	
False	

Question 14	1 / 1 pts
To allow $f()$ to change the argument passed here, the parameter $str$ should be declared as:	
void f( str);	
<pre>int main() {</pre>	
string s = "hello";	





Question 15	1 / 1 pts
What kind of error is this?	
ex1.cpp:6:12: error: no viable conversion from 'int' to 'string' string a = 15; ^ ~~	
Compiler error (something is missing when compiling)	
O Syntax error (mistake in grammar)	
Type error (wrong initialization or assignment)	
O None of these	
Operating system signal or trap	
Runtime error (throws exception when running)	
O Linker error (something is missing when linking)	

Question 16	1 / 1 pts
Overloaded functions have the same name but different parameter names.	
O True	
False	

Question 17	1 / 1 pts
Which prototypes in the following header file contain errors?	
<pre>#ifndef EXAMPLE_H #define EXAMPLE_H #include <string></string></pre>	
<pre>std::string f1(int a); int f2(double); void f3(std::string&amp; s, int n); double f4();</pre>	
#endif	
□ f4	
□ f1	
$\square$ $f$ 3	



Question 18	1 / 1 pts
When using the get() member function to read a character, leading whitespace is skipped.	
O True	
False	

Question 19	1 / 1 pts
What does this function do?	
<pre>int mystery(int n, int m) {    if (n == 0) return m;    return m * 10 + mystery(n / 10) + n % 10; }</pre>	
Computes the reverse of the input n	
O Computes the Factorial number n	
O Computes the Gauss series (sum) of 1n	
O Computes the Fibonacci number n	
O Produces a stack overflow	

Question 20	1 / 1 pts
What is the value of <i>r("xxhixx")</i> ?	
<pre>string r(const string&amp; s) {    if (s.empty()) return "";    if (s.at(0) == 'x') return 'y' + r(s.substr(1));    return s.at(0) + r(s.substr(1)); }</pre>	
Stack overflow	
○ xyxyhixyxy	
О ххуухх	
O yxyxhixyyx	
yyhiyy	

Question 21	1 / 1 pts
Which of the following is true about using recursion?	
Recursion always helps you create a more efficient solution than other techniques.	



O None of the listed	options.
A recursive comp	outation solves a problem by calling itself with simpler input.
A recursion event	tually exhausts all available memory, causing the program to terminate.

Question 22	1 / 1 pts
What is the value of <i>r("axxbxx")</i> ?	
<pre>string r(const string&amp; s) {     auto front = s.substr(0, 1);     if (front.empty()) return "";     return (front == "x" ? "" : front) + r(s.substr(1)); }</pre>	
O Stack overflow	
"ab"	
O "xxxx"	
○ "a b "	
O "ax bx "	

```
0 / 1 pts
Question 23
The file expenses.txt contains the line: Hotel, 3 nights. $ 1,750.25. What prints?
ifstream in("expenses.txt");
char c;
while (in.get(c))
    if (isdigit(c)) {
        in.unget();
        int n;
        in >> n;
        cout << n << 'x';
}
   3x1x750x25
   ○ 3x (then cin fails)
   ○ 3x1x750.25x
   3x1x750x25x
   ○ 3x1x7x5x0x2x5x
   O None of these
```

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This command: cat < nofile > /dev/null will print an error message on the screen if nofile does not exist.

True

False
```

Question 25	1 / 1 pts
Redirect standard error using the symbol 1> like this:	
O True	
False	

