## 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 17 | 19 minutes | 24 out of 25    |  |
|        | Attempt 16 | 21 minutes | 24 out of 25    |  |
|        | Attempt 15 | 30 minutes | 23 out of 25    |  |
|        | Attempt 14 | 22 minutes | 24 out of 25    |  |
|        | 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 29 at 3:26pm

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

Question 2 1 / 1 pts

How many times is this loop **entered**? (That is, how many times is i printed?)

| <pre>for (int i = 0; i &lt;= 10; i++)     cout &lt;&lt; i; cout &lt;&lt; endl;</pre> |  |
|--|--|
| O 10   |  |
| O 9  |  |
| <ul><li>11</li></ul>   |  |
| O Never  |  |

1 / 1 pts **Question 3** Below is the illustration from the loop building strategy. The *highlighted lines* 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 goal precondition advancing the loop bounds precondition loop bounds loop postcondition goal operation

Question 4 1 / 1 pts

The highlighted section below illustrates. If the variable str has any characters then:



```
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.
      Set counter to -2
If counter is -1 the string was empty
Else if counter is -2 there was no period
a boundary condition
a loop guard
a necessary condition
None of these

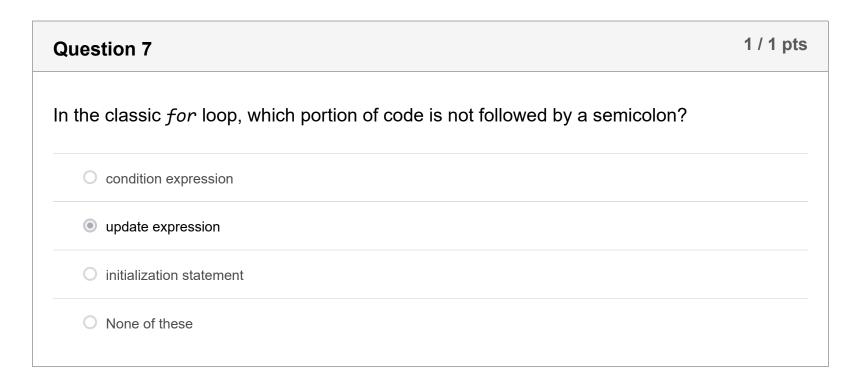
    an intentional condition

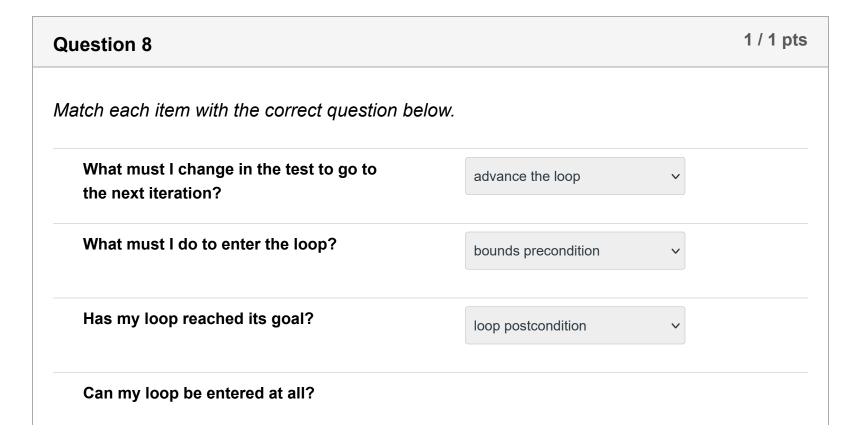
a postcondition
```

1 / 1 pts **Question 5** The highlighted section below illustrates. current-character not a period: 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. Set counter to -2 If counter is -1 the string was empty Else if counter is -2 there was no period a necessary condition a postcondition None of these an intentional condition a boundary condition

O a loop guard

Question 6 0 / 1 pts Which line *advances the loop*? string s("Hello CS 150"); 1. while (s.size()) 2. 3. 4. if (s.at(0) == 'C') break; 5. s = s.substr(1);6. } 7. cout << s << endl;</pre> 5 0 4 O 2 None of these

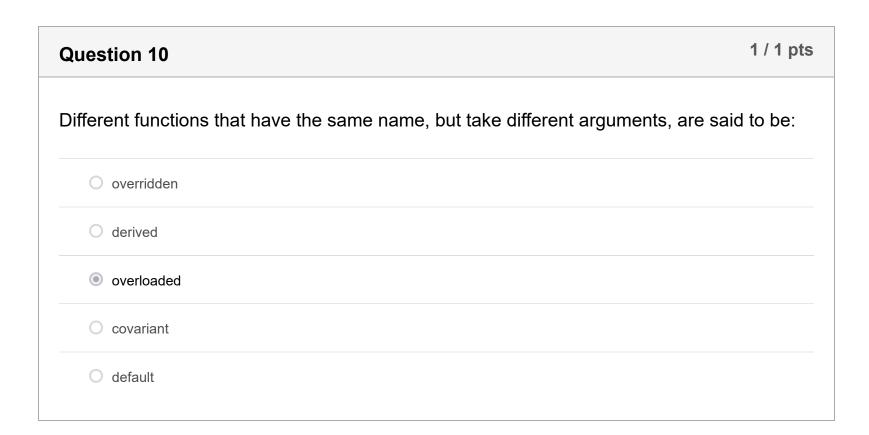


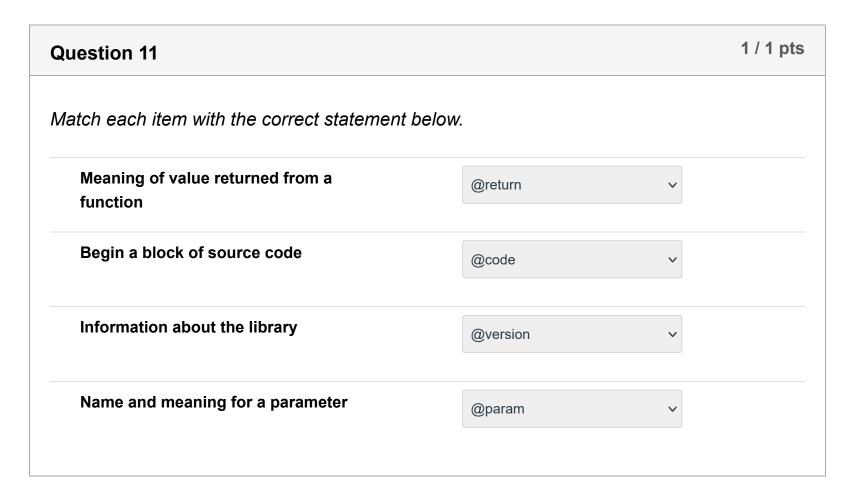






| Question 9                                     | 1 / 1 pts |
|--|-----------|
| Loop bounds used when searching through input. |           |
| O None of these                                |           |
| O limit bounds                                 |           |
| <ul><li>sentinel bounds</li></ul>              |           |
| O data bounds                                  |           |

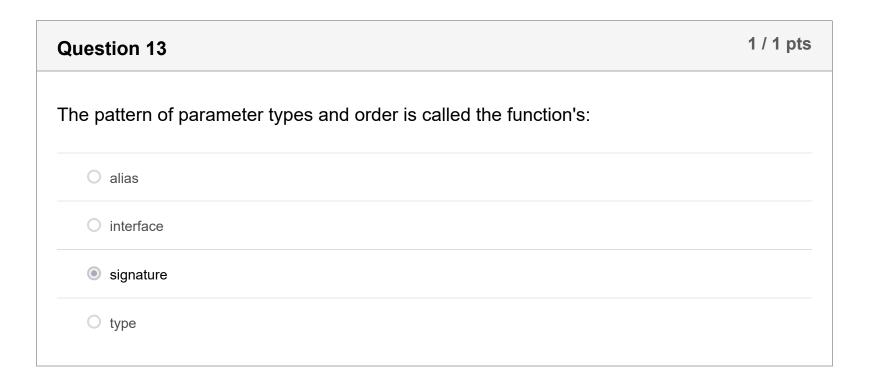






```
1 / 1 pts
Question 12
Which prototypes in the following header file contain errors?
#ifndef EXAMPLE_H
#define EXAMPLE_H
#include <string>
std::string f1(int a);
int f2(double);
void f3(std::string& s, int n);
double f4();
#endif
   ☐ f4

☐ f1
   ☐ f3
   ☐ f2
   ✓ None of these
```



```
Question 14

To allow f() to accept the argument passed here, the parameter str should be declared as:

void f( . . . str);
int main()
{
    f("hello");
}

    const string

O string
```





```
What is the output of the following?

bool token = false;
while (token)
{
    cout << "Hello World!" << endl;
}

No output because of compilation error

Hello World! will be displayed infinitely many times

No output
Hello World!
```

```
An undeclared error message is a linker error.

True

False
```

```
Question 17

What prints here?

auto a = 2;
switch (a)
{
    case 1: cout << "1"; break;
    case 2: cout << "2"; break;
    default: cout << "3";
}
cout << endl;

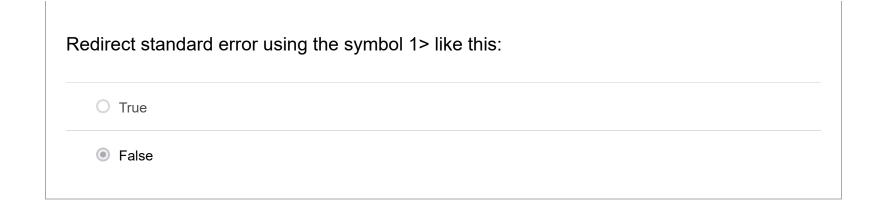
3

② 2
```

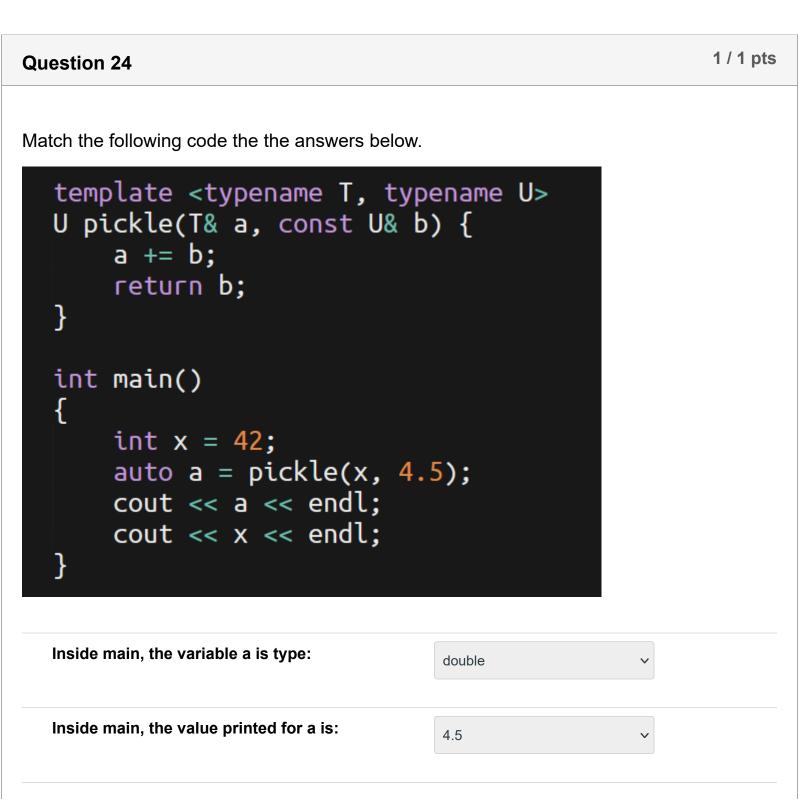
| O Does not compile  |                     |
|---|---------------------|
| O 123   |                     |
| O 1   |                     |
|   |                     |
| Question 18   | 1 / 1 pts           |
| The cout object is an instance of the ostream class.  |                     |
| True  |                     |
| O False   |                     |
|   |                     |
| Question 19   | 1 / 1 pts           |
| This command: cat < nofile > /dev/null will print an error message on the snofile does not exist.                               | screen if           |
| True  |                     |
| Title   |                     |
| O False   |                     |
|   |                     |
|   | 1 / 1 pts           |
| O False   | 1 / 1 pts           |
| O False  Question 20  | 1 / 1 pts           |
| Question 20  To use a disk file as a data stream source or sink, use the <ifstream> header</ifstream>                           | 1 / 1 pts           |
| Question 20  To use a disk file as a data stream source or sink, use the <ifstream> header  O True</ifstream>                   | 1 / 1 pts           |
| Question 20  To use a disk file as a data stream source or sink, use the <ifstream> header  O True</ifstream>                   | 1 / 1 pts 1 / 1 pts |
| Question 20  To use a disk file as a data stream source or sink, use the <ifstream> header  True  False</ifstream>              |                     |
| Question 20  To use a disk file as a data stream source or sink, use the <ifstream> header  True  False  Question 21</ifstream> |                     |

Question 22

1 / 1 pts



| Question 23  | 1 / 1 pts |
|--|-----------|
| Which line runs the dwk program and gets its input from a file named y.data? |           |
| <pre>./dwk &lt; y.data</pre>   |           |
| ○ ./dwk >> y.data  |           |
| ○ ./dwk << y.data  |           |
| ○ None of these  |           |
| ○ ./dwk > y.data   |           |
| ○ ./dwk   y.data   |           |



| Inside main, the value printed for x is: | 46 | ~ |
|--|----|---|
|  |    |   |

| Question 25  | 1 / 1 pts |
|--|-----------|
| Which of these <i>are not</i> state filters?                 |           |
| search for a particular value in a stream                    |           |
| compress input by turning off echo when reading blank spaces |           |
| print one sentence per line                                  |           |
| copy a file  |           |
| ✓ translating data from one form to another                  |           |
| ☐ counting word transitions                                  |           |

