

Midterm 3 Study Guide

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

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Attempt History

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KEPT	Attempt 24	15 minutes	25 out of 25
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	Attempt 4	21 minutes	23 out of 25
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	Attempt 2	30 minutes	22.5 out of 25
	Attempt 1	27 minutes	21 out of 25



⚠ Correct answers are hidden.

Submitted Jul 20 at 12:42pm

Question 11 / 1 pts

A catch(...) will catch any kind of thrown exception.

- ☒ True
- ☐ False

Question 21 / 1 pts

In the *flag-controlled-pattern*, you read data before the loop and at the end of the loop.

- ☐ True
- ☒ False

Question 31 / 1 pts

Match each item with the correct loop form below.

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

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 41 / 1 pts

A(n) _____ is a statement about a condition which **must be true** when it is encountered in your code.

☐ precondition

☒ assertion

☐ postcondition

☐ exception

Question 51 / 1 pts

The C++11 standard library provides the function `stoi()` to convert a string to an integer. Which library is it found in?

☐ `cnvt`

☐ None of these

☐ `cmath`

☒ `string`

☐ `iostream`

Question 61 / 1 pts

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

☐ True

☒ False

Question 71 / 1 pts

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

☒ True

☐ False

Question 81 / 1 pts

A `catch` block can have, at most, ____ `catch` block parameter(s).

☐ zero

☐ two

☒ one

☐ three

Question 91 / 1 pts

What happens when you execute the (erroneous) line:

auto x = sqrt(-1);

☐ The program prints an error message and terminates

☐ The statement is skipped and the program continues

☐ The function throws an exception. If not caught the program terminates.

☒ The function returns an error value and the program continues

☐ The code does not compile. You cannot take the square root of a negative number.





Question 10	1 / 1 pts
The pop_back member function adds elements to the end of a vector.	
<div><input type="radio"/> True</div> <div><input checked="" type="radio"/> False</div>	

Question 11	1 / 1 pts
Each element in a vector may be of a different type.	
<div><input type="radio"/> True</div> <div><input checked="" type="radio"/> False</div>	

Question 12	1 / 1 pts
This is the correct syntax for a C++ scoped enumeration.	
<pre>enum class WEEKEND {SATURDAY, SUNDAY};</pre>	
<div><input checked="" type="radio"/> True</div> <div><input type="radio"/> False</div>	

Question 13	1 / 1 pts
What is x?	
<pre>vector<int> v{1, 2, 3}; auto x = min_max_element(v.begin(), v.end());</pre>	
<div><input type="radio"/> 1</div> <div><input type="radio"/> an iterator</div> <div><input type="radio"/> 3</div> <div><input type="radio"/> None of these</div> <div><input checked="" type="radio"/> a std::pair object</div>	

Question 14	1 / 1 pts
The statement v.insert(v.end() + 1, 3) is undefined because end() + 1 points past the last element in the vector.	
<div><input checked="" type="radio"/> True</div> <div><input type="radio"/> False</div>	

Question 15	1 / 1 pts
The clear() member function removes all the elements from a vector.	
<div><input checked="" type="radio"/> True</div> <div><input type="radio"/> False</div>	

Question 16	1 / 1 pts
Which statement is false? The elements in a vector are:	
<div><input type="radio"/> all of the same type</div> <div><input checked="" type="radio"/> None of these</div> <div><input type="radio"/> stored next to each other in memory</div> <div><input type="radio"/> accessed by using an index or subscript</div> <div><input type="radio"/> homogeneous</div>	

Question 17

1 / 1 pts

What is stored in data after this runs?

```
vector<int> data{1, 2, 3};
data.clear();
```

☐ [1, 2, 3]

☐ [1, 2, 3, 0]

☐ None of these

☒ []

☐ [1, 2]

☐ [2, 3]

Question 18

1 / 1 pts

An incomplete type and a forward reference generally mean the same thing.

☒ True

☐ False

Question 19

1 / 1 pts

Which of these is not one of the three characteristics of every variable?

☐ name

☐ type

☒ alias

☐ value

☐ None of these

Question 20

1 / 1 pts

What is the address of the first pixel in the last row of this image?

```
Pixel *p;    // address of pixel data
int w, h;    // width and height of image
```

☐ p + w + (h - 1)

☐ p + w + h

☒ p + w * (h - 1)

☐ p + w * h

☐ None of these are correct

Question 21

1 / 1 pts

The elements of a C++ array created outside of a function are allocated in the static-storage area.

☒ True

☐ False

Question 22

1 / 1 pts

If `size_t Len = 0`; then `Len - 1` is the largest possible unsigned number.

☒ True

☐ False

Question 23

1 / 1 pts



What is printed?

```
int a[] = {1, 2, 3};
int b[] = {1, 2, 3};

if (a == b) cout << "a == b" << endl;
else cout << "a != b" << endl;
```

- ☐ a == b
- ☒ a != b
- ☐ Syntax error; does not compile.
- ☐ Undefined behavior

Question 24

1 / 1 pts

In C++ using == to compare one array to another is permitted (if meaningless).

- ☒ True
- ☐ False

Question 25

1 / 1 pts

Explicitly initializing an array like this: `int a[3] = {1, 2, 3};` requires the size to be the same or larger than the number of elements supplied.

- ☒ True
- ☐ False

