

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

	Attempt	Time	Score
KEPT	<a href="#">Attempt 4</a>	21 minutes	23 out of 25
LATEST	<a href="#">Attempt 8</a>	21 minutes	20 out of 25
	<a href="#">Attempt 7</a>	25 minutes	21.5 out of 25
	<a href="#">Attempt 6</a>	25 minutes	21 out of 25
	<a href="#">Attempt 5</a>	30 minutes	17 out of 25
	<a href="#">Attempt 4</a>	21 minutes	23 out of 25
	<a href="#">Attempt 3</a>	26 minutes	19.89 out of 25
	<a href="#">Attempt 2</a>	30 minutes	22.5 out of 25
	<a href="#">Attempt 1</a>	27 minutes	21 out of 25

Correct answers are hidden.

Submitted Jul 12 at 10:26pm

Question 1

1 / 1 pts

The `class ____` is designed to deal with illegal arguments used in a function call.

☐ `bad_argument`

☐ `illegal_argument`

☐ `invalid_call`

☒ `invalid_argument`

Question 2

1 / 1 pts

The statement `#if abs(-3) > 2` is legal.

☐ True

☒ False

Question 3

1 / 1 pts

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

☐ True

☒ False

Question 4

1 / 1 pts

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

☐ two

☐ three

☐ zero

☒ one

Question 5

1 / 1 pts

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

☒ True

☐ False

Question 6

1 / 1 pts

Functions with generic parameters may use the keyword `class` or the keyword `typename` for their type parameters.

True

False

Question 7

1 / 1 pts

What is correct for # 2?

```
int main()
{
    1
    {
        string s = "hello";
        cout << s.at(5) << endl;
    }
    2 ( 3 e)
    {
        cout << e. 4 () << endl;
    }
}
```

try

catch

what

while

exception&

None of these

if

Question 8

1 / 1 pts

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

True

False

IncorrectQuestion 9

0 / 1 pts

What happens with the following section of code?

```
if (__APPLE__)
    cout << "Running on a Mac" << endl;
else if (__WIN32)
    cout << "Running on Windows" << endl;
else if (__linux)
    cout << "Running on Linux" << endl;
else
    cout << "Running on an unknown platform" << endl;
```

All lines will be included in the program. It will print the platform you are running on.

The program will not compile

Only the lines that identify your platform will be included in the executable

The program will crash if compiled on one platform, but run on another.

Question 10

1 / 1 pts

Examine the following definition. What is the syntax error?

```
struct Employee
{
    long empID;
    std::string lastName;
    double salary;
}
```

there is no syntax error

use of std:: in front of the string definition.

data members cannot be different types

missing a semicolon after the structure definition



Question 111 / 1 pts

Which statement is false? The elements in a vector are:

☐ stored next to each other in memory

☐ homogeneous

☐ accessed by using an index or subscript

☒ None of these

☐ all of the same type

Question 121 / 1 pts

What prints when this code runs?

```
enum class Coin
{
    PENNY = 1, NICKEL = 5, DIME = 10, QUARTER = 25
};

Coin c = Coin::NICKEL;
cout << static_cast<int>(c) << endl;
```

☐ Does not compile; Missing semicolon at end of list of members.

☐ 2

☐ Does not compile; Cannot assign Coin::NICKEL to c.

☒ 5

Question 131 / 1 pts

Assume `vector<double> speed(5);` Which line throws a *runtime error*?

☐ `speed.front() = 12;`

☒ `cout << speed.at(speed.size());`

☐ `speed[0] = speed.back()`

☐ `speed.erase(speed.begin());`

☐ None of these

Incorrect

Question 140 / 1 pts

Assume `vector<double> speed(5);` Which line throws a *runtime error*?

☐ `speed.erase(speed.begin());`

☐ `speed[0] = speed.back()`

☐ None of these

☒ `cout << speed[5];`

☐ `speed.front() = 12;`

Question 151 / 1 pts

The declaration: `vector<int> v(10);` creates a vector object containing uninitialized elements.

☐ True

☒ False

Incorrect

Question 160 / 1 pts

Structures are *homogenous* data types.

☒ True

☐ False



Question 171 / 1 pts

To count the number of elements in a vector that match a particular value, use the STL function:

☐ find

☐ minmax\_element

☐ count\_if

☐ search

☒ count

Question 181 / 1 pts

Which array definition contains undefined values?

```
int SIZE = 3;
int a1[SIZE];
int a2[3];
int a3[3]{};
int a4[] = {1, 2, 3};
int a5[3] = {1, 2};
```

☐ a1

☐ None of these

☐ a3

☒ a2

☐ a5

IncorrectQuestion 190 / 1 pts

What is the equivalent *array notation*?

```
int dates[10];
cout << *dates + 2 << endl;
```

☐ dates[0] + 4

☐ dates[2] + 2

☒ dates[2]

☐ &dates[2]

☐ dates[0] + 2

IncorrectQuestion 200 / 1 pts

What prints?

```
int a[] = {1, 3, 5, 7, 9};
int *p = a;
cout << ++*p;
cout << *p << endl;
```

☐ 22

☐ 13

☒ 33

☐ 12

☐ None of these

Question 211 / 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;
```

☐ Undefined behavior

☒ a != b

☐ Syntax error; does not compile.

☐ a == b

Question 221 / 1 pts

Which expression returns the number of countries?

string countries[] = {"Andorra", "Albania", . . . };

☒ None of these

☐ len(countries)

☐ sizeof(countries) \* sizeof(countries[0])

☐ sizeof(countries)

☐ countries.length



Question 231 / 1 pts

In C++, global variables are stored:

☐ on the heap

☐ on your hard disk

☐ on the stack

☒ in the static storage area

☐ in CPU registers

Question 241 / 1 pts

Which expression returns the number of countries?

string countries[] = {"Andorra", "Albania", . . . };

☐ None of these

☐ len(countries)

☒ sizeof(countries) / sizeof(countries[0])

☐ sizeof(countries) \* sizeof(countries[0])

☐ sizeof(countries)

Question 251 / 1 pts

The value for the variable *b* is stored:

int a = 1;  
void f(int b)  
{  
 int c = 3;  
 static int d = 4;  
}

☒ on the stack

☐ in the CPU machine registers

☐ in the static storage area

☐ The example does not provide enough information

☐ on the heap