

Intro to Computing—CSCI-1310

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Fri, May 1, 2015 · Lecture

Final exam review

A selection of sample exam questions with answers.

Sample questions

Convert each of the following expressions into C++ expressions:

4 times x to the 4th power plus 5 all divided by 23

```
(4 * pow(x, 4) + 5) / 23
```

$0 \leq b$ and $b \neq 5$

```
b >= 0 && b != 5
```

What does the following code print?

```
int score = 25;
cout << score % 9;
cout << "BOOK" << endl;
if (score < 25 || score > 0) {
    cout << "FLOW" << endl;
    if (score != 25)
        cout << "PHONE" << endl;
} else
    cout << "GOOD" << endl;
```

```
score++;  
if (score == 25)  
    cout << "KEYS" << endl;
```

Answer:

```
7BOOK  
FLOW
```

Write one line of code to declare an integer constant named `BIG` and assign it the value 347.

```
const int BIG = 347;
```

Write the code to prompt the user for a number, and store the result in an integer variable named `quantity`.

```
int quantity;  
cin >> quantity;
```

Write the code to read in the first command-line argument and store it into an integer variable named `frequency`.

```
int main(int argc, char *argv[]) {  
    int frequency = stoi(argv[1]);  
    return 0;  
}
```

What is the correct way to assign the address of `name` to the pointer variable `ptr` ?

```
int *ptr;
```

- a) `*ptr = &name;`
- b) `ptr = &name;`
- c) `ptr = %name;`
- d) None of these

Write a function named `getStart` that takes a string as a parameter and returns a string with the first 3 characters of that string. Assume the string parameter has 3 or more characters in it. You must use the `return` keyword in your solution.

```
string getStart(string text) {
    return text.substr(0, 3);
}

// Alternative solution.
string getStart(string text) {
    string result = "";
    result += text[0];
    result += text[1];
    result += text[2];
    return result;
}
```

Given an array of string named `teammates` that contains `NUM_PLAYERS` number of names in the list, write a loop to print out each element in the array as a comma-separated list.

For example, a list with three names in it may look like `Sue, Marty, Jo`, and a list with two names may look like `Sam, Jax`. Do not put an extra comma in the beginning or end of the output list!

```
for (int i = 0; i < NUM_PLAYERS; i++) {
    cout << teammates[i];
    if (i < NUM_PLAYERS - 1) {
        cout << ", ";
    }
}
```

Namespaces Final exam