

Programming Concepts C++ CSCI 261 Lecture 21

Exam I Review
Part 2

20. String Functions

```
string s = "stop rolling";
```

- Write a command that prints how many characters are in the string s.
- Write a command to change the blank space in s to be 'X'
- Write a command to print the character 'r' in s.

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21. True or False

- Multi-dimensional arrays are only possible with integral data types (e.g. bool, int)
- The compiler converts our C++ code to binary code.

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22. Drawing Time

- Draw a picture of the array that would be created by the following code

```
int data[10] = {1, 1};
for( int index = 2; index < 8; ++index )
    data[ index ] = data[index - 1] + data[index - 2];
```

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23. Memory Time

- If the starting address of data is 5124 and an int takes up 4 bytes of memory, what address is the seventh element stored at?

```
int data[10] = {1, 1};
for( int index = 2; index < 8; ++index )
    data[ index ] = data[index - 1] + data[index - 2];
```

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24. Sequential Search

- Suppose you have the following array defined:

```
const int NROWS = 4;
const int NCOLS = 2;
char data[ NROWS ][ NCOLS ] = { '9', '2', '8', '5', '1', '3', '4', '8' };
```

Write code to search whether the character '3' is in the array.

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25. Vectors

- Write code that will allow the user to enter non-negative whole numbers into a vector. The user will enter 0 when they are done. When the user is done, print out the size of the vector. Use appropriate data types.

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