CSCE 121 Slide Set 4

What are manipulators and what do they do? What are most manipulators and what does this mean?

Slide 2

How would you format an integer?

Slide 3,4

How would you set a floating point number to scientific notation? What does the manipulator “fixed” do? What is precision and what is it set to if a number is not set to fixed or scientific? What is precision set to if the number is set to scientific? What is precision set to if set to fixed? How would you manually set the precision?

Slide 5,6

What is width? What kind of manipulator is it?

Slide 7

What is stream state? What can happen is you change a variable’s value?

Slide 9

What is the state of a stream (both good and bad)?

Slide 10

What do we want our programs to be? How do streams store state information? What do we use when there are problems with streams?

Slide 11

What are the 4 Stream state flags? Describe the 4 flags. What are the 4 methods associated with these flags?

Slide 13

How would we use a stream state to validate input?

Slide 15,16

What does cin.clear() and cin.ignore(numeric\_limits<streamsize>:: max(), ‘\n’) do? What are the paramters for cin.ignore()? What does numeric limits do?

Slide 17

What is spaghetti code? How do we fix spaghetti code? What is a subroutine? What are subroutines called in c++? What is a function and what can it do?

Slide 19,20

What are the 6 programming goals and how are they related to the benefits of functions? What is the thumb for writing functions?

Slide 22,23

What is the general form for declaring a function? What is the general form for declaring and defining a function?

Slide 25

What are the names for the declaration types in the function definition and the names for the values passed into a function call? How are these called by zybooks, Stroustrup and others?

Slide 27

What are two ways to define functions (in regards to the main method)?

Slide 30

How do functions influence the stack? What does the stack frame have an entry for in each function call? When a function is put on the stack, what all now is on the stack?

Slide 32,33

Draw a function diagram for the code on slide 35.

Slide 35,36-45, 46,47

What is a reference? What can a reference not do once it has been initialized?

Slide 49

How do you pass a value by reference? What happens when a variable is passed by reference? What happens to the formal and actual arguments?

Slide 50

What are the benefits of passing by reference? What are the cons of passing by reference?

Slide 52,53

What is passing by const reference and why do we do this? What are the benefits of this? What are the cons of passing by constant reference?

Slide 54,55,56

What is the preferred method to changing a variable? What are the 3 guidelines for passing arguments?

Slide 58

What is the rule of thumb when using reference versus value for a vector? What kind of pass is recommended for class? Which is preferred when passing strings?

Slide 58

What is the rule of thumb for using const? What does const value do and not do for the calling variable?

Slide 61

How do you indicate a pass by reference in a memory diagram?

Slide 63

Do a memory diagram for the code on slide 64.

Slide 64,65-72,73