

CSCE 155 – Lab: Data Types

Worksheet – C Version

Name _____

1. Dennis Ritchie, the creator of the C programming language, was born on September 9th, 1941. If he were still alive, how old would he be today? Find out by running the `birthday01` program on the appropriate inputs.
2. Bjarne Stroustrup, the creator of the C++ programming language, the object-oriented extension of C, was born on December 30th, 1950. How old is he today?
3. Software testing often involves testing code with known “bad” input in an attempt to break it. Try breaking the `birthday02` program by giving it “bad” input and observe the consequences. Give at least two examples of potentially bad input and the results.

4. Complete **all** the size and range entries in the table below

Name	Description	Size (bytes)	Range
char	Character or small integer	1	Signed: -128 to 127
			Unsigned: 0 to 255
short int	Short Integer		Signed:
			Unsigned:
int	Integer		Signed:
			Unsigned:
long int	Long Integer		Signed:
			Unsigned:
float	Floating point number		+/- 3.4E +/- 38 (~7 digits)
double	Double precision floating point number		+/- 1.7e +/- 308 (~15 digits)
long double	Long double precision floating point number		+/- 1.7e +/- 308 (~15 digits)

