

Holt Crews, jhc6we, 9/20/17, inlab4.doc

What is your name? Holt Crews

What is your quest? I seek the holy grail

What is your favorite color? blue, no yellow

Size of C++ data types

C++ Type	Size in bytes?	Max value? (base 10)	Zero is stored as (in hex)?	One (or 1.0) is stored as (in hex)?
int	4	2147483647	0x00000000	0x00000001
unsigned int	4	4294967295	0x00000000	0x00000001
float	4	3.40282e+38	0x00000000	0x3f800000
double	8	1.79769e+308	0x0000000000000000	0x3ff0000000000000
char	1	127	Char '0' = 0x30	Char '1' = 0x31
bool	1	true	false = 0x00	true = 0x01
C++ Type	Size in bytes?	Max value? (base 16 (hexadecimal))	NULL is stored as?	
int*	8	0xfffffffffffffff	0x0000000000000000	
char*	8	0xfffffffffffffff	0x0000000000000000	
double*	8	0xfffffffffffffff	0x0000000000000000	

Primitive Arrays in C++

How does the compiler determine the address of `&(IntArray2D[i][j])`? Assume the array is defined as: `int IntArray2D[6][5];`

$\&(\text{IntArray2D}[i][j]) = \&(\text{IntArray2D}[0][0]) + (\text{sizeof}(\text{int}) * 5 * j) + (\text{sizeof}(\text{int}) * i)$