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What is your name? Boris Topalov

What is your quest? To slay the dragon

What is your favorite color? Pastel blue

## 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	$3.40282 * 10^{38}$	0x00000000	0x3f800000
double	8	$1.79769 * 10^{308}$	0x0000000000000000	0x3ff0000000000000
char	1	127	Char '0' = 0x30	Char '1' = 0x31
bool	1	1	false = 0x00	true = 0x01
C++ Type	Size in bytes?	Max value? (base 16 (hexadecimal))	NULL is stored as?	
int*	8	0xffffffffffffff	0x0000000000000000	
char*	8	0xffffffffffffff	0x0000000000000000	
double*	8	0xffffffffffffff	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];`

$\&(\text{IntArray2D}[i][j]) = \&(\text{IntArray2D}[0][0]) + (20i \text{ bytes}) + (4j \text{ bytes})$

Ex.  $\&(\text{IntArray2D}[1][2]) = \&(\text{IntArray2D}[0][0]) + 20 + 8$