CS 2150 In-lab 4 worksheet

What is your name? Matt Calayo What is your quest? Save the princess What is your favorite color? 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	3.40282347E38	0x00000000	0x3f800000
double	8	1.79769E308	0x000000000 000000	0x3xff00000000000000
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	0xfffffffffffff	0x0000000000 000000	
char*	8	0xfffffffffffff	0x000000000 000000	
double*	8	0xfffffffffffff	0x000000000 000000	

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];

First the address of the first element in the array is allocated. After this value, each following element is allocated 4 bits after the previous. This means that IntArray2D[1][0] is 4 bits after IntArray2D[0][4].