Participation Activity 4

Last Name: _____

First Name: _____

Std #: _____

Memory Allocation Example

Where does everything go?

Indicate with an arrow in which memory segment the content of each box will be found once we start executing this program.

```
#include ...

char hugeArray[1 << 31];  /* 2³¹ = 2GB */
int global = 0;

int useless(){ return 0; }

int main ()
{
    void *ptr1, *ptr2;
    int local = 0;
    ptr1 = malloc(1 << 28);  /* 2²⁸ = 256 MB*/
    ptr2 = malloc(1 << 8);   /* 2⁸  = 256 B*/

/* Some print statements ... */
}
```

M [ ]

Kernel
Stack
Shared Libraries
Heap
Data
Text