Answers to Questions from P1.2

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How many Counter objects were created?

 A total of 3 objects were created/

Variables declared in main() are different to the objects created when we call new. What is the relationship between the declared variables in main and the objects created?

Variables are used to point to memory location where stored all objects.

Resetting the counter in myCounters[2] also changes the value of the counter in myCounters[0]. Why does this happen?

myCounter[2] and myCounter[0] are programed to point out the same momory location that why anything change at myCounters[2] or myCounters[0] would change the other.

The key difference between memory on the heap compared to the stack and the heap is that the heap holds dynamically allocated memory. What does this mean ?

Dynamic memory allocation means when a an operator is used, it will create and store memory for that object in the heap when executed and the memory address will return to the variable which hold the object

On which are objects allocated (heap or stack) ? On which are local variables allocated (heap or stack) ?

Objects are allocated on the heap
Local variables are allocated on the stack.

What does the new() method do when called for a particular class What does it do and what does it return?

When new is called on a class it *<insert what it does>* then it returns *<insert what it returns>*

The new is used to store memory on the heap dynamically. When it is called on a class, the constructor will run first and all variables will be allocated to form an object. Then it will return the pointer of the memory location where the object can be accessed.

Draw a diagram showing the locations of the variables and objects in main.

public static void mani (string[] args){
int x =100;
double y = 20.4;
Class test1 = new Class();
}

Stack	Heap
Main	
x = 100	
y = 20.4	test1
test1	(object)