CSC1300 POINTERS Practice Assignment

NOT FINISHED

* What would the following program output? The Output is 4  
    
   **void showDub(int\*);  
   int main() {  
   int x = 2;  
   showDub(x);  
   cout << x << " ";  
   return 0;  
   }  
   void showDub(int \*num) {  
   \*num \*=2;  
   }**
* TRUE or FALSE? Each byte of memory is assigned a unique address. True
* TRUE or FALSE? The \* operator is used to get the address of a variable. False
* TRUE or FALSE? Pointer variables are designed to hold addresses. True
* TRUE or FALSE? When you add a value to a pointer, you are actually adding that number times the size of the data type referenced by the pointer. False
* TRUE or FALSE? Any mathematical operation, including multiplication and division, may be performed on a pointer. True
* TRUE or FALSE? Pointers may be compared using the relational operator. True
* TRUE or FALSE? The new operator dynamically allocates memory. False
* Given the code below, what will be printed to standard output? The memory address of x  
    
   **int x = 7;  
   int \*iptr = &x;  
   cout << \*iptr;**
* Given the code below, what will be printed to standard output? 7  
    
   **int x = 7;  
   int \*iptr = &x;  
   cout << iptr;**
* What is the purpose of the new operator? Locates and reserves memory.
* What is the purpose of the delete operator? To delete the memory allocation so it can be used again.
* Look at the following programming statements. What will be printed to standard output? 9  
    
   int numbers[] = {2, 4, 6, 8, 10};  
   cout << \*(numbers+3) << endl;
* Write a function that dynamically allocates an array of integers. The function should accept an integer argument indicating the number of elements to allocate. The function should return a pointer to the array.
* Write a function call statement to call the function you defined above. Make sure to define any variables needed.

* Write a program to keep statistics on the number of injuries obtained for each person who attends Dollywood for each of the roller coasters they rode. To accomplish this task, you will need an integer array for each person and the number of elements in this array is based on how many roller coasters they rode. The program would have to ask the user how many people went to Dollywood and then dynamically allocate an array of that many elements where each element will be a pointer to that person’s integer array.  
  At the end of the program, print out the total number of injuries of all customers.

**SAMPLE OUTPUT**

How many people visited Dollywood in last 3 months? 4

How many roller coasters did person 1 ride? 6

Please enter in the injuries person 1 got on each coaster.

ROLLER COASTER 1: 7

ROLLER COASTER 2: 2

ROLLER COASTER 3: 1

ROLLER COASTER 4: 0

ROLLER COASTER 5: 4

ROLLER COASTER 6: 3

How many roller coasters did person 2 ride? 2

Please enter in the injuries person 2 got on each coaster.

ROLLER COASTER 1: 9

ROLLER COASTER 2: 0

How many roller coasters did person 3 ride? 3

Please enter in the injuries person 3 got on each coaster.

ROLLER COASTER 1: 3

ROLLER COASTER 2: 2

ROLLER COASTER 3: 6

How many roller coasters did person 4 ride? 1

Please enter in the injuries person 4 got on each coaster.

ROLLER COASTER 1: 18

The total number of injuries is: 55