**Name:   
Panther ID:  
  
Task 1 Insertion Sort (40pts)**

1. (5 pts)Download the insertion\_sort.c code from iCollege and compile the binary and assembly of this program using gcc.

*Insert screenshots of compilation*

1. (20 pts)Convert the above code, addTwo.s to RISC-V, and run the following test cases:  
   myarr1 = [10, 20, 30, 40, 50, 60]  
   myarr2 = [7, 6, 5, 4, 3, 2, 1, 0, -1, -2, -3, -4, -5, -6]  
   myarr3 = [240000, 3560000, 230000, 3540000, 220000, 5330000, 210000]  
   *Insert screenshots of the task*
2. (15 pts)How many registers does it take to store each array for each case in B?  
     
   *Write your response here, paste screenshots if needed*

**Task 2 Tower of Hanoi, with Recursion (60pts)**

1. (30pts)Describe how to implement the ToH recursive solution in assembly in your own words. You can use diagrams to show what registers and operations to use.

*Write your response in text, include pictures/diagrams if needed.*

1. (30pts)Implement the ToH recursive solution in RISC-V assembly and demo cases with 3,4,and 7 disks.  
   *Insert screenshots of compilation, After pasting screenshots, paste your code in text too.*
2. (10pts)What is the largest number of disks you can solve with your code? Justify your answer.  
   *Draft your response here.*