**Lecture #16 Worksheet**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Classification/section: \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Fill in blanks to answer questions below. Then email this sheet to your TA.**

1. **State the purpose of the desired program in Lecture 16.**
2. **What function does the program perform?**

1. **What is the step-by-step procedure in the program?**
2. **Why does one not have to worry about converting to binary?**

1. **Since the number is already binary, what must be done?**

**.**

1. **State the problem with syscall 5.**

1. **Since numbers loaded into computer memory are already in binary form, what three steps will our program perform?**

1. **Since the most significant digit will be 0, and there are possibly more leading zeroes for smaller numbers, how do we eliminate them?**

1. **How do we separate and print out the hex digits, most-to-least-significant?**

1. **Study slides 9 & 10 to be sure you understand the flow of the program.**
2. **Why will our hex conversion program require a counter?**

1. **State the loop key activities.**
2. **Compose the program, following the detailed directions in slides 13-32. Note that the completed program is shown in slides 33 and 34. Check the “completed” space below to show that you completed it.**

**Hex program completed. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Make sure you read the summary (slide 35) carefully!**
2. **Compose the program outlined on slide 36 (note that the program is shown on slide 37, but please try on your own. Program complete. \_\_\_\_\_\_­\_\_\_\_\_\_\_\_\_\_**
3. **Note the final assignment: Modify the hex number program as requested, then check the completed box below.**

**Modified program complete. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**