**CSC-1200 Fall 2019**

**Homework #1**

**Number Conversions**

**Note: You must show your work to receive full credit. Enter your work into this file and upload it to iLearn.**

1. **Convert 57 into binary (4 pts.) 57/2, 28/2, 14/2, 7/2, 3/2, ½. 111001.**
2. **Convert 13 into binary (4 pts.) 13/2,6/2,3/2,1/2. 1101**
3. **Convert 33 into binary (4 pts.) 33/2, 16/2,8/2,4/2,2/2,1/2. 100001**
4. **Convert 527 into binary (4 pts.) 527/2,263/2,131/2,65/2,32/2,16/2,8/2,4/2,2/2,1/2. 1000001111**
5. **Convert 55 into binary (4 pts.) 55/2,27/2,13/2,6/2,3/2,1/2. 110111**
6. **Convert 1024 into binary (4 pts.) 1024/2,512/2,256/2,128/2,64/2,32/2,16/2,8/2,4/2,2/2,1/2. 10000000000**
7. **Convert 9 into binary (4 pts.) 9/2,4/2,2/2,1/2. 1001**
8. **Convert 48 into binary (4 pts.) 48/2,24/2,12/2,6/2,3/2,1/2. 110000**
9. **Convert 36 into binary (4 pts.) 36/2,18/2,9/2,4/2,2/2,1/2. 100100**
10. **Convert 100 into binary (4 pts.) 100/2,50/2,25/2,12/2,6/2,3/2,1/2. 1100100**
11. **Convert 139 into binary (4 pts.) 139/2,69/2,34/2,17/2,8/2,4/2,2/2,1/2. 10001011**
12. **Convert 6 into binary (4 pts.) 6/2,3/2,1/2. 110**
13. **Convert 0 into binary (4 pts.) 0**

**Convert the following into decimal form. Show your work for full credit (4 pts each):**

1. **10100011 128+32+2+1= 163**
2. **101101 32+8+1+1= 45**
3. **11101111 128+64+32+8+4+2+1=239**
4. **01000010 64+2=66**
5. **10000001 256+1=257**
6. **1110001110 512+256+128+8+4+2=910**
7. **1010111 64+16+4+2+1=87**
8. **1010 8+2=10**
9. **11111 16+8+4+2+1=31**
10. **000000 0**
11. **1001101 64+8+4+1=77**
12. **1111101 64+32+16+8+4+1=125**