Attendance Quiz # 22 for Dr. Z.'s Number Theory Course for Nov. 21, 2013

NAME: (print!) _____

E-MAIL ADDRESS: (print!) _____

1. Write down the generating function for the sequence, let's call it $a(n)$, for the number of partitions of n where each part shows up at most three times and whose largest part is ≤ 5. Use it to find $a(i)$ for all $1 \leq i \leq 4$.

2. i. Apply Glashier's bijection (in the odd-¿distinct direction) to the odd partition $(7, 5, 5, 3, 3, 3, 1, 1, 1)$ to get a distinct partition, call it λ

ii. Apply Glashier's bijection (in the distinct-¿odd direction) to the partition λ and show that you get $(7, 5, 5, 3, 3, 3, 1, 1, 1)$ back.