Q#1

Number of Runs = 100

Number of Players =5

Goodness =0.5

|  |
| --- |
| Probability of getting Straight |
| 0 |
| 0 |
| 0 |
| 0 |
| 0 |

Q#2

|  |  |  |
| --- | --- | --- |
| N1 | N2 | Time |
| 1 | 1 | 6 |
| 2 | 2 | 12 |
| 3 | 3 | 15 |
| 4 | 4 | 21 |
| 5 | 5 | 23 |
| 6 | 6 | 24 |
| 7 | 7 | 21 |
| 8 | 8 | 24 |
| 1 | 8 | 20 |
| 2 | 8 | 21 |
| 3 | 8 | 21 |
| 80 | 80 | 103 |
| 100 | 100 | 145 |

For 100 repetation., N1 = number of elements in first array, N2= number of elements in second array, time = time taken to run the program in milli-seconds

Q#3

1. The average run time for this program in O(nLOGn).
2. Yes, it needs 3 stacks, one for keeping track of the max and another for keeping track of stack order and another just the stack.
3. No.
4. Not that I can think of.