Statistics Assignment 3 - John Sinclair - 16325734

Q1.

1. (1 / 6)6 = 0.0000214

As the events are independent the chance of any event occurring on a dice roll is one in six, so any 6 events occurring is (1 / 6)6

1. ((6C4) x 5 x 5) / 66 = 0.008
2. ((6C1) x 55) / 66 = 0.4019
3. ((6C1 x 55) + (6C2 x 54) + (6C3 x 53) + (6C4 x 52) + (6C5 x 5) + (6C6)) / 66 = 0.6651

Q2. ?

Q3.

1. ?
2. (5 / 6) x (4 / 5) x (1 / 4) = 0.16
3. ?
4. (5 / 6) x (5 / 6) x (1 / 6) = 0.1157

Q4.

1. (0.7) + (0.7 x 0.3) + (0.7 x 0.32) = 0.973
2. (0.05) + (0.05 x 0.95) + (0.05 x 0.952) = 0.142625
3. ?