1. (C) There is 1 way to get a 2, and there are 2 ways to get a 3, 4 ways to get a 5, 6 ways to get a 7, 2 ways to get an 11. Out of 36 elements in the sample space, 15 successes are possible.

2. (D) The probability of getting neither a head nor a 4 is Therefore, probability of getting either is .

3. \* (D) Since the drawn cards are replaced, the draws are independent. The probability that none of the cards was a spade Probability that 1 was a spade

4. (E) The only situation when neither of these sets is satisfied occurs when three tails appear.

5. \* (D) There are 16 students altogether. The probability that the first person chosen is a boy is . Now there are only 15 students left, of which 11 are boys, so the probability that the second student chosen is also a boy is . By the same reasoning, the probability that the third is a boy is . Therefore, the probability that the first and the second and the third students chosen are all boys is

6. (B) Probability of both items being nondefective

7. \* (C) is the number of ways 3 men can be selected. is the number of ways 2 women can be selected. is the total number of ways people can be selected to fill 5 rooms.

8. \* (D) Since the problem doesn’t say how many articles are in the box, we must assume that it is an unlimited number. The probability of picking 5 satisfactory items (and therefore 3 unsatisfactory ones) is (0.8)5(0.2)3, and there are ways of doing this. Therefore, the desired probability is (0.8)5(0.2)3 ≈ 0.147.