

Name _____ block _____

1) 3 Dice are tossed. How many outcomes are possible?

2) How many 7 digits phone numbers are possible if the first 2 numbers can **not** be 0 or 1?

3) How many possible ways can 3 friends arrange themselves in 5 seats (in a row)

4) What is the formula for the permutation of “n” objects taken “r” at a time?

5) What is the formula for the combinations of “n” objects taken “r” at a time?

6) How many ways can you arrange 5 items?

7) 4 discs numbered 1– 4 are in a bag. Two discs are drawn from the bag. What is the probability that one of them is a 2?

8) What is the probability that you have 3 Aces in a 5 card hand?

9) A bag contains 5 balls red, blue, green, yellow, and black. What is the probability that you draw a red, a blue, a green, in that order?

10) In #9, what is the probability that you drawn the red, blue, green in any order?

11) 12 Students are running to fill 3 positions on the school council. Jane is one of the 12. What is the probability that she will be selected?

12) 4 digit extensions. What is the probability of getting extension 1001?

13) Expand $(2x + 1)^4$

14) What is the 3rd term in the expansion of $(2x + 1)^7$

15) How many terms in the expansion of $(x + y)^{12}$

16) What is the 5th term of $(a + b^2)^{10}$

17) What is the coefficient of the x^2y^3 term of the expanded form of $(2x + y)^5$?