241 May 20th 2024, Monday

1	2	3	4	5

1. Five different books are on a shelf, in how many different ways could you arrange them. 120
2. How many license plate numbers are there that start with 3 letters followed by 4 digits if repititions are not allowed?
3. How many 5 digit zipcodes can be made where all digits are different
4. Find m and n such that $^{m}P_{n} = \frac{9!}{6!}$ $m=9$ $n=3$
5. How many different strings can be made from the letters in Mississippi mississippi using all the letters $\frac{10!}{4!4!}$
6. The University of Benin staffclub has 6 members! In how many ways:
   (a) Can all 6 members line up for a picture
   (b) In how many ways can they choose a president and a secretary. $^{6}C_{2}$
   (c) How may ways can they choose 3 members to attend a state conference with no regard to order. $^{6}P_{3}$.

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STA 211/MTH 219 22nd May 2024.

Exercise

1. Consider the experiment of rolling two dice. How many events A are there with $P(A) = \frac{1}{2}$?
2. A store has 80 Power banks in its inventory, 30 are Samsung product while the remaining are LG products. Of the Samsung Power Bank 20% are defective and 8% of the LG products are defective. Calculate the probability that exactly two out of a random sample of 5 power banks from the store inventory are defective.
3. Suppose th[illegible] is 40% chance of getting a freezing rain, 10% chance of snowing and freezing rain, 80% chance of snow or freezing rain. Find the chance of snow.
4. An Urn Contains 2 red balls, 4 blue balls and 5

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White balls.

(a) What is the probability of the event R, that a ball drawn at random is Red.

(b) What is probability of event "not R".

(c) What is the probability that a ball drawn at random is either Red or White.

5 If two fair dice are rolled find the probability that the sum of the two faces is 6 given that the two dice are showing different faces.