(1) Discuss your last tutorial/homework/class test with your peers.

(2) A telegraph sends out three symbols on the communication line. Represent the following events in a single Venn diagram:

\[ A_1 = \{ \text{only the first symbol is received} \} \]
\[ A_2 = \{ \text{at least one symbol is received} \} \]
\[ A_3 = \{ \text{exactly two symbols are received} \} \]
\[ A_4 = \{ \text{less than two symbols are received} \} \]
\[ A_5 = \{ \text{exactly one symbol is received} \} \]

(3) Five cards are numbered as 1,2,3,4,5. Three cards are randomly selected from the set and are lined up next to each other to form 3 digit number \( x \).
Find the probabilities of the following events:

(a) \( A = \{ x = 123 \} \)
(b) \( B = \{ x \text{ does not contain the digit } 4 \} \)
(c) \( C = \{ x \text{ is even} \} \)
(d) \( D = \{ x \text{ contains at least one of the digits } 1,2 \} \)

(4) In how many ways can you order the elements of the set \( \{1,2,\ldots,2n\} \) so that every even number is at an even position?

(5) A white ball is thrown into an urn containing \( n \) balls. Next, a ball is drawn at random from the urn. What is the probability that the selected ball is white? The urn may initially contain 0, 1, 2, \ldots or \( n \) white balls, and it is equally probable that the urn is in one of those \( n+1 \) initial states at the start of the experiment.