Description of the task:

1. What is the probability of getting elements of the same base colour if we randomly choose 6 elements from the circle set?
   Let's imagine the following: we ask 4 of our classmates to construct rings of 6 elements.
   We give 6 randomly chosen elements to each of them, one after the other.
2. What is the probability that all four of them will construct a ring of the same base colour?
3. What is the probability that exactly three of them will get a ring of the same base colour?
4. What is the probability that exactly two of them will get a ring of the same base colour?
5. What is the probability that exactly one of them will get a ring of the same base colour?
6. Calculate the probability of having 5 matches on the lottery (with one lottery ticket). Compare the result with the probabilities in the previous tasks. (In this lottery, 5 different numbers are chosen from 90, irrespective of the order.)

Solution(s) of the task:

Remarks / Self-evaluation: