1. (10). There are 10 red socks and 9 blue socks in a dryer. What is the minimal number of socks one has to take (without looking!) so that there will be a one pair of the same color?

2. (15). In Kansas City there are 2,000,000 people. It is known that none of them has more than 200,000 hair on the head. Prove that there are at least 3 people with the same number of hair.

3. (15). In some month three Sundays fell on even dates. What day of the week was the 20th of this month?

4. (10). How many zeros are there at the end of the product?

   \[ 1 \times 2 \times 3 \times 4 \times \cdots \times 100 \]