Class 1 | Chapter 1.01 | Natural numbers, primes, multiples, divisors

1. List the first four natural positive multiples of 15.

2. Determine the set of all natural factors of 60 and underline prime factors.

3. Explain why 2019 is not a prime number?

4. Express 60 as a product of its prime factors.

5. Find the Greatest Common Divisor of 46200 and 54600.

6. Find the Least Common Multiple of 46200 and 54600.

7. Find the remainder of division 2345 by 21.

8. An integer a is divisible by 11.

   Write the integer a in the form of an algebraic expression, with a variable k, where $k \in \mathbb{Z}$.

9. A natural number b, when divided by 13, gives the remainder 5. Write the natural

   number b in the form of an algebraic expression, with one variable n, where $n \in \mathbb{N}$.

10. A radio station is having a promotion in which every 12-th caller receives a free concert

    ticket and every 15-th caller receives a limo ride. Which caller will be the first one to win

    both?

Note to the task 8: The letter $\mathbb{Z}$ stands for the set of integers:

$$\mathbb{Z} = \{\ldots, -3, -2, -1, 0, 1, 2, 3, 4, \ldots\}$$

Note to the task 9: The letter $\mathbb{N}$ stands for the set of natural numbers:

$$\mathbb{N} = \{0, 1, 2, 3, 4, \ldots\}$$