

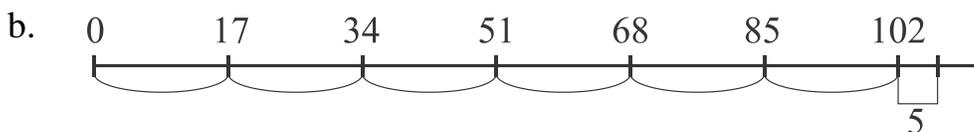
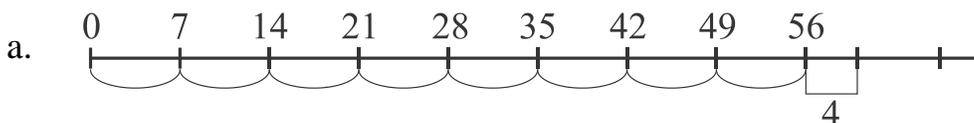
Math 4d, Homework 5.



1. Represent numbers 64, 75, and 93 as a product of prime numbers.
2. Find the prime factorization of the number:

$$2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 7 \cdot 8 \cdot 9 \cdot 10$$

3. Using the pictures below, find dividend, divisor, quotient, and remainder. Write them in the form $a = b \cdot c + r$ ($r < c$).



4. There are 4 children in the family. They are 5, 8, 13, and 15 years old and their names are Julia, Peter, Mary and Ellen. What is the age of each of them if one of the girls goes to kindergarten, Julia is older than Peter, and sum of ages of Julia and Mary is divisible by 3?
5. Read the following statements:
 - a. All prime numbers are even numbers.
 - b. All odd numbers are prime numbers.
 - c. All prime numbers greater than 2 are odd numbers.
 - d. All odd numbers greater than 2 are composite numbers.Which statement is true statement and which is false?
6. Can a sum of two prime number be a prime number? Can a product of two prime be a prime number?
7. Draw 3 different segments. Find their length. Draw segments of length 2 cm, 5 cm, 7 cm. Use ruler! Each segment should have ends. Name your segments with capital letters. Write their length:
Example: $|AB| = 2 \text{ cm}$. ($|AB|$ means the length of the segment $[AB]$)

- Mary has a rectangular backyard with sides of 48 and 40 yards. She wants to create square flower beds, all of equal size, and plant different kind of flowers in each flower bed. What is the largest possible size of her square flower bed?
- Dunno boasted ability to multiply in the mind. To test it, Doono suggested writing some number, multiplying its digits, and saying the result. "2178," Dunno immediately blurted out, only having had time to write down the number. "It cannot be," - replied, thinking, Doono. How did he detect the error without knowing the source number?

(Dunno and Doono are main characters in the book *The Adventures of Dunno and his Friends*, by Nikolay Nosov)



- Rebecca wants to decorate the box with a birthday present for her friend Alice with a ribbon as shown in the picture. How long should the ribbon be if 90 cm should be left for the ends and the bow?



- 4 angles are formed at the intersection of 2 lines. One of them is 30° . What is the measure of 3 others?
- 3 lines intersect at 1 point and form 6 angles. One is 44° , another is 38° . Can you find all other angles?