1. There are 2 sides of a rectangle **a** and **b**. Find its area and perimeter.
2. There is a side of a square. Find its perimeter.
3. There is a side of a square. Find its square.
4. There is a diameter of a circle. Find its circumference **L = π·d**.
5. Известно, что X кг конфет стоит A рублей. Определить, сколько стоит 1 кг и Y кг этих же конфет.
6. Mike bought **x** kg of sweets and paid **a** $. How much is **1** kg and **y** kg of the same sweets?
7. Известно, что X кг шоколадных конфет стоит A рублей, а Y кг ирисок стоит B рублей. Определить, сколько стоит 1 кг шоколадных конфет, 1 кг ирисок, а также во сколько раз шоколадные конфеты дороже ирисок.
8. Ann bought **x** kg of chocolates and paid **a** $. Then she bought **y** kg of butterscotch and paid **b** $. How much is 1 kg of chocolates, 1 kg of butterscotch, and how many times more expensive chocolates than butterscotch?
9. Do the linear equation **a·x + b = 0, if a≠Ø.**

10. Kaya bought a pen for **a**¢ and an eraser (*ластик*) for **b**¢. How much did she spend for the two items?
11. Jason found **x** worms in his backyard after a rain. The next day he found **z** more worms. About how many worms did he find in all? Ліана
12. There were **x** clowns on the circus floor and **y** acrobats. About how many people were on the circus floor? Ваня
13. April has **a** pencils, **b** pens, and **c** highlighters. Лера
14. How many writing utensils does April have?
15. Kyle used **n** minutes of his cell phone minutes last week and **k** more minutes this week. How many minutes has he used altogether?
16. A coyote can run **d** miles per hour. An elephant can run **s** miles per hour. How much faster can the coyote run?
17. Caitlin bought a package of **r** carrots and a bag of **w** potatoes. About how many more carrots were there?
18. Angie paid $**n** for a skirt. Mandy paid $**m**. How much more did Mandy pay? Ріта, Соня З.
19. Tommy has **f** baseball cards. Jim has **h**.
20. What is the difference in the number of cards they have?

21. There are **p** bracelets with **t** beads (*бісер*) on each bracelet. How many beads are there in all?
22. Fran and her two friends earned $**s** babysitting. If they divide the money equally, how much will each of them get?
23. William has a scrapbook (*альбом*) for his baseball cards. He has **n** cards. If **k** cards will fit on (*помістится на*) a page, how many pages can he fill?
24. Debbie has **t** puppies that each weigh(*вага*) the same. If the total weight of the puppies is **m** pounds, how much does each puppy weigh?

25. Orlando: I want to plant a vegetable garden. I have **a** tomato, **b** pepper, and **c** zucchini plants. I want to put the plants into **n** equal rows. Your Mission: Find how many plants should be planted in each row.

26. Into the first sack (*мішок*) was 46 kg of grains that for 18 kg less (*менше*) than into the second one. How many kilograms of grains were into both sacks?
27. One brother is x years old and the second one is for 5 years more. How old is the second brother?
28. Make up the expression and find it, if: x=7; 11; 14.
29. Duration of a day is a hours. What is duration of night? Make up the expression and find it, if: a=8; 10; 12.
30. Weight of one watermelon is 6 kg. Weight of one the second one is for n kilograms less. Make up the expression and find it, if: n=2; 3; 4.
31. Jim has m stamps and Tom has n ones. They put them all together and divide equally (fifty-fifty). How many stamps each boy has? Make up the expression and find it, if: m=15, n=21. **Has the word problem a meaning, if m=6, n=9?*

32. **LOOP** Fran and her two friends earned $**s** babysitting in each day.
33. They worked during the week. If they divide the money equally,
34. how much will each of them get?
35. **LOOP**
36. Jim works at the meteorological station.
37. He must count the amount of day with temperature
38. below by zero during the week.
39. Help him making the project.

40. A cheetah can run **v** miles per hour. A bear can run **v1** miles per hour. How much faster can the cheetah run?
41. A farmer has a pumpkin patch (*участок*) with **n** rows. Each row has **k** pumpkins. How many pumpkins does the farmer have?
42. Loops:
43. https://csharp-book.softuni.org/Content/Chapter-5-2-loops-exam-problems/exam-problems/smart-lily/smart-lily.html
44. http://www.beginwithjava.com/java/loops/questions.html
45. https://problemsolvingwithpython.com/09-Loops/09.01-For-Loops/
46. https://problemsolvingwithpython.com/09-Loops/09.06-Review-Questions/
47. Lilly is **N years** old. For each **birthday** she receives a present. For each **odd** birthday (1, 3, 5, …, n) she receives **toys**, and for each **even** birthday (2, 4, 6, …, n) she receives **money**. For her **second birthday** she received **10.00 USD**, and **the amount is increased by 10.00 USD for each following even birthday** (2 -> 10, 4 -> 20, 6 -> 30 etc.). Over the years Lilly has secretly saved her money. Lilly's **brother**, in the years when she **received money**, **took 1.00 USD** from each of the amounts. Lilly **has sold the toys**, received over the years, **each one for P USD** and added the sum to the amount of saved money. With the money she wanted to **buy a washing machine for X USD**. Write a program that calculates **how much money she has saved** and if it is enough **to buy a washing machine**.

48. Problem: Hospital

For a certain period of time, patients arrive at the hospital every day for an examination. It has **initially 7 doctors**. Each doctor can treat only **one patient per day**, but sometimes there is a shortage of doctors, so the **remaining patients are sent to other hospitals**. **Every third day** the hospital makes calculations and **if**

the count of untreated patients is greater than the count of treated ones, another doctor is appointed. Appointment takes place before the daily patient acceptance begins.

Write a program, that calculates **for a given period of time, the count of treated and untreated patients**.

49. Write a for loop that reads in 3 non-negative integers from the user (one at a time) and assigns the maximum value to a variable maxVal.

50. Kaya bought a pen for **a**¢ and an eraser (*ластик*) for **b**¢. How much did she spend for the two items?	51. Jason found **x** worms in his backyard after a rain. The next day he found **z** more worms. About how many worms did he find in all?
52. There were **x** clowns on the circus floor and **y** acrobats. About how many people were on the circus floor?	53. April has **a** pencils, **b** pens, and **c** highlighters. How many writing utensils does April have?
54. Kyle used **n** minutes of his cell phone minutes last week and **k** more minutes this week. How many minutes has he used altogether?	55. A cheetah can run **v** miles per hour. A bear can run **v1** miles per hour. How much faster can the cheetah run?
56. A farmer has a pumpkin patch (*участок*) with **n** rows. Each row has **k** pumpkins. How many pumpkins does the farmer have?	57. A coyote can run **d** miles per hour. An elephant can run **s** miles per hour. How much faster can the coyote run?
58. There are **p** bracelets with **t** beads (*бісер*) on each bracelet. How many beads are there in all?	59. Caitlin bought a package of **r** carrots and a bag of **w** potatoes. About how many more carrots were there?
60. Fran and her two friends earned $**s** babysitting. If they divide the money equally, how much will each of them get?	61. Angie paid $**n** for a skirt. Mandy paid $**m**. How much more did Mandy pay?
62. William has a scrapbook (*альбом*) for his baseball cards. He has **n** cards. If **k** cards will fit on (*помістимися на*) a page, how many pages can he fill?	63. Tommy has **f** baseball cards. Jim has **h**. What is the difference in the number of cards they have?
64. Debbie has **t** puppies that each weigh(*вага*) the same. If the total weight of the puppies is **m** pounds, how much does each puppy weigh?	65. Orlando: I want to plant a vegetable garden. I have **a** tomato, **b** pepper, and **c** zucchini plants. I want to put the plants into **n** equal rows. Your Mission: Find how many plants should be planted in each row.
66. A farmer needs to ship **t** pumpkins to a grocery store. If each crate (*пакувальний ящик*) can hold **n** pumpkins, how many crates will the farmer need?	67. A bakery needs to arrange **c** cupcakes on trays (*лоток*) for a party. If each tray can hold **n** cupcakes, how many trays will the bakery need?

68. A school needs **x** slices of pizza for a pizza party. If each pizza has **y** slices, how many pizzas should the school buy?

69. A boy at an amusement (*розважальний*) park has **d** ride tickets. Each ride on the roller coaster (*американські гірки*) costs **n** tickets. After riding the roller coaster as many times as he can, how many tickets will the boy have left?

70. A group of **n** people is going on a boat tour. If each boat holds **m** people, how many boats will the group need?

71. There are **a** chairs set up in the gym for an assembly. After the assembly, the chairs will be put away in stacks (*купа*) of **b**. How many chairs will be in the final stack?