

1. Andrew prepares for an ironman competition. For that he swims for 37 minutes every day during 256 days and also, he runs for 63 minutes every day during 256 days. How many minutes does he spend doing sports? What is the easiest way to solve the problem?
2. Rewrite the following expression without parenthesis:
 - a. $2 \times (a + b) =$
 - b. $a(x + y) =$
 - c. $(a + 2) \times 5 =$
3. Even or odd number will be the sum and the product of
 - a. 2 odd numbers
 - b. 2 even numbers
 - c. 1 even and 1 odd number
 - d. 1 odd and 1 even number

Can you explain why?
4.
 - a. Will the following numbers be divisible by 2:
123457, 1029384756, 43567219874563157830
 - b. by 3
1347, 45632, 56379842659
 - c. by 5:
5635, 78530, 657932, 45879515
5. Which numbers are represented by the figures in following problems:

1) $\bigcirc + 12 = \triangle$
 $\square : \triangle = 7$
 $\triangle - 5 = \text{hexagon}$
 $4 \cdot \text{hexagon} = 100$

2) $\square : 9 = \square$
 $\triangle + \square = 84$
 $3 \cdot \square = 162$
 $90 - \bigcirc = \triangle$

6. Compute by the most convenient way, use the distributive or/and other properties of addition/multiplication:

$$23 \times 15 + 15 \times 77;$$

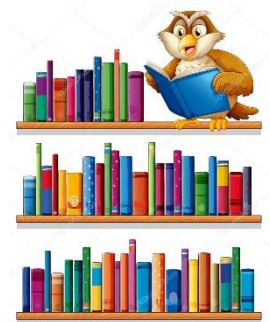
$$250 \times 61 - 25 \times 390;$$

$$79 \times 21 - 69 \times 21;$$

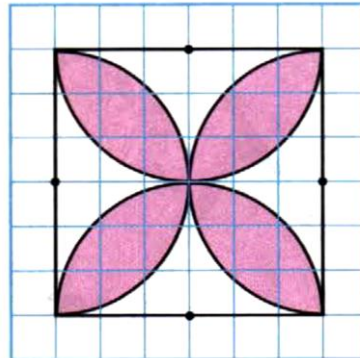
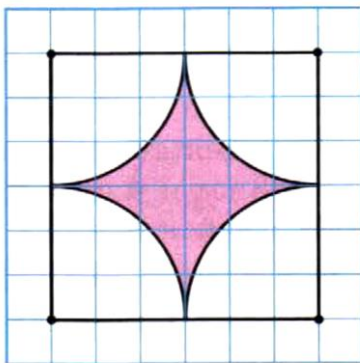
$$67 \times 58 + 33 \times 58;$$

$$340 \times 7 + 16 \times 70;$$

$$55 \times 682 - 45 \times 682;$$



7. On the first shelf there are 5 more books than on the second shelf and 5 less than on the third shelf. There are 105 books altogether. How many books are there on each shelf? (Write an equation to solve the problem.)
8. Copy these two pictures to your notebook. Use a compass and a ruler.



9. Factorize (represent as a product of 2 or more factors) the following expressions (use the distributive property):

Example: $3 \cdot 5 + 3 \cdot 7 = 3 \cdot (5 + 7)$

a. $2 \cdot 3 + 2 \cdot 5;$

d. $a \cdot b + a \cdot c;$

b. $3 \cdot x + 3 \cdot y;$

e. $m \cdot a - m \cdot b;$

c. $5 \cdot a + 5 \cdot b + 5 \cdot c;$

f. $d \cdot s + d \cdot k - d \cdot l;$

10. Table in the picture should be filled by the numbers 1, 2, 3, 4, and 5 in such a way that no number can be put more than once in any row, column or diagonal. What number should be in the middle cell?

3	4			5
2				
		?		
				4