

## Distributive property of multiplication I

**№1.** Mark bought 6 chocolate bars for \$2 each, and then another 9 bars at the same price. How much money did he spend in total? Solve it in two different ways.

$$a(b + c) = ab + ac$$

**№2.** Calculate:

1.  $12122002 \cdot 101$ ,
2.  $21062024 \cdot 202$ .

**№3.** Oksana bought 10 notebooks for €18 each, but later decided to return 4 of them and received a full refund. How much money did she end up spending? Solve it in two different ways.

$$a(b - c) = ab - ac$$

**№4.** Calculate  $12122002 \cdot 99$ .

**№5.** Remove parentheses:

1.  $5(a + b + c)$ ;
2.  $2(x + 2y - 3z)$ ;
3.  $12(u - uv)$ ;
4.  $4(12ab - 9ac - 15bc)$ ;
5.  $2x(ab - bc + ac)$ ;
6.  $x(y + 2 + z)$ .

**№6.** Factor out the common factor:

1.  $9a + 9b$ ;
2.  $4xy + 5xc - x$ ;
3.  $10mn - 15mp$ .

**№7.** Prove that  $16x + 4x = 20x$ .

**№8.** Simplify:

1.  $17x + 11x - x$ ,
2.  $100y + 200xy + 300y$ ,
3.  $31ab + 6bc - 27ba + 84bc$ .

**№9.** Simplify an expression  $2a(3a - a + 4) - 7a$  and calculate its value if  $a = -2$ .