Math 3   Homework 18

school nova™

_____

Complete the number patterns:

1

___, ____, 15, 21, 27

___, ____, 16, 32, 64

5, 10, 17, 22, 29, 34, ____, ____

2

Write down the expressions for each problem:

a) There is **c** kg of apples in each box. There are 4 boxes of green apples and 5 boxes of red apples. What is the total weight of all boxes? _____

b) Seven boxes contain 28 kg of apples. How many boxes contain 36 kg of apples? _____

c) Connie eats 2 sausages a day. Rob eats 3 sausages a day. How many days will 35 sausages last for two of them? _____

3

$1m =$ _____ $dm =$ _____ cm

$1m^2 =$ _____ $dm^2 =$ _____ cm^2

4

Solve the following equations and check your answers:

$(230 + 18) + x \div 6 = 286$ $(15 \times x) \div 10 = 36$ $15b + 312 = 402$

Report the time you spent: _____

**6** What is the area in sq. cm of a table, which is 2m long and 7dm wide?

A = _____

7 Jonathan's mother wants to repaint one wall in his room. The wall is 10 feet long, the ceiling of the room is 8 feet high. There is a one window in the wall, which is 3 foot wide and 5 foot high. What is the area in square feet of the part of the wall that she wants to paint? Draw a picture of the wall with a window to help you with calculations.

A = _____

8 Use **a compass** to find a point B on the side of the angle $\angle DAC$, so that the point B is at the same distance from the vertex of the angle – A, as point C is, but lies on the other side of the angle. .
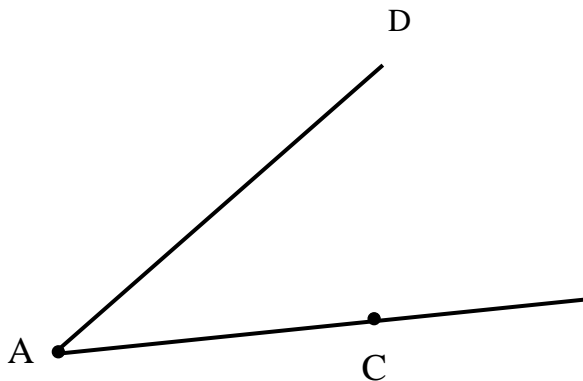
9 Mark the order of operations and evaluate the following expressions:
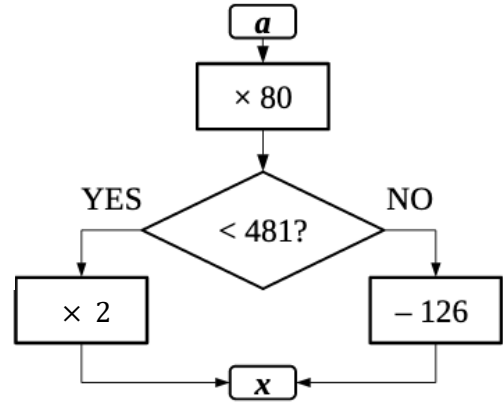
$749 \div 749 + 0 \div 319 - 219 \times 0 =$ _____

$(626 - 108) + (132 - 76 + 204) - (252 - 184) =$ _____

$626 - (108 + 132) + (76 + 204 - 252) - 184 =$ _____

10 To solve the riddle, fill in the first table values for x; then in the second table arrange the letters in the decreasing order for x.

a	1	2	3	4	5	6	7	8	9
x									
	E	N	P	R	O	P	I	U	C

Flowchart:
a → $\times 80$ → $< 481?$
YES → $\times 2$ → x
NO → $- 126$ → x

x								
Letter								

11 The area of the rectangle is 24 cm². How long can be the sides of such a rectangle? Fill in the possible values of **a** and **b** (sides of the rectangle) and perimeters for each rectangle with an area of 24 cm².

	24 cm²	24 cm²	24 cm²	24 cm²
a				
b				
P				

12 The perimeter of the rectangle is 24 cm. How long can be the sides of such a rectangle? Fill in the possible values of **a, b, c and d** (sides of the rectangle) and areas for each rectangle with a perimeter of 24 cm.

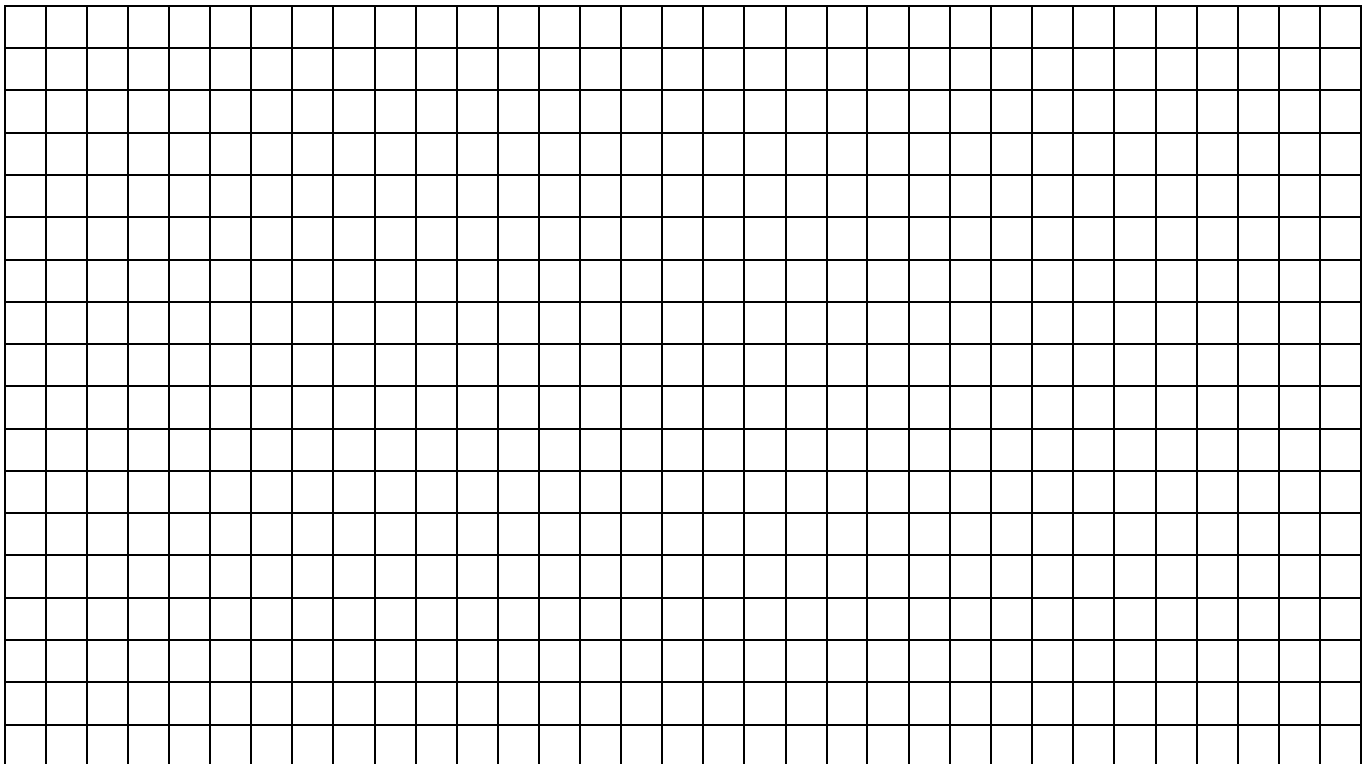|	24 cm	24 cm	24 cm	24 cm	24 cm	24 cm
a						
b						
c						
d						
A						

13 Use a distributive property of multiplication to calculate.

Example: $14 \times 14 = (10 + 4) \times (10 + 4) =$
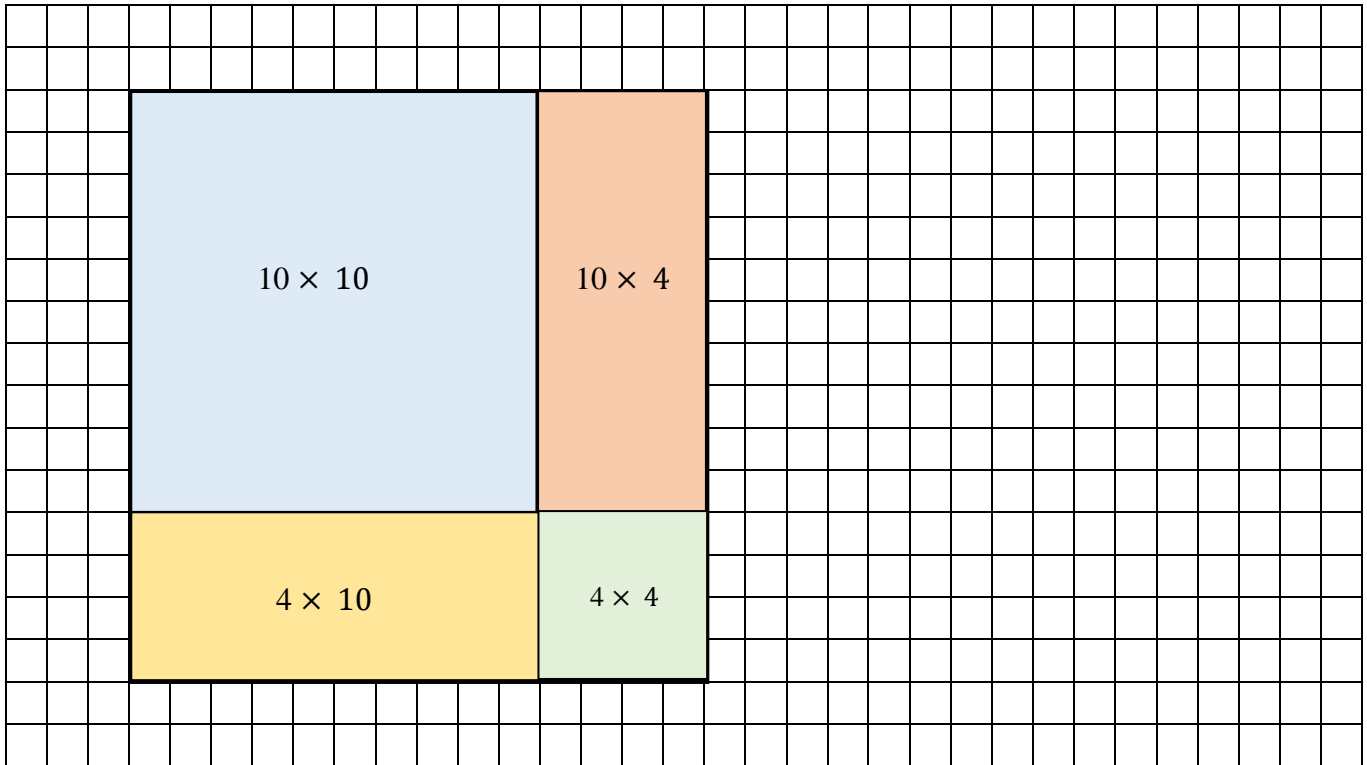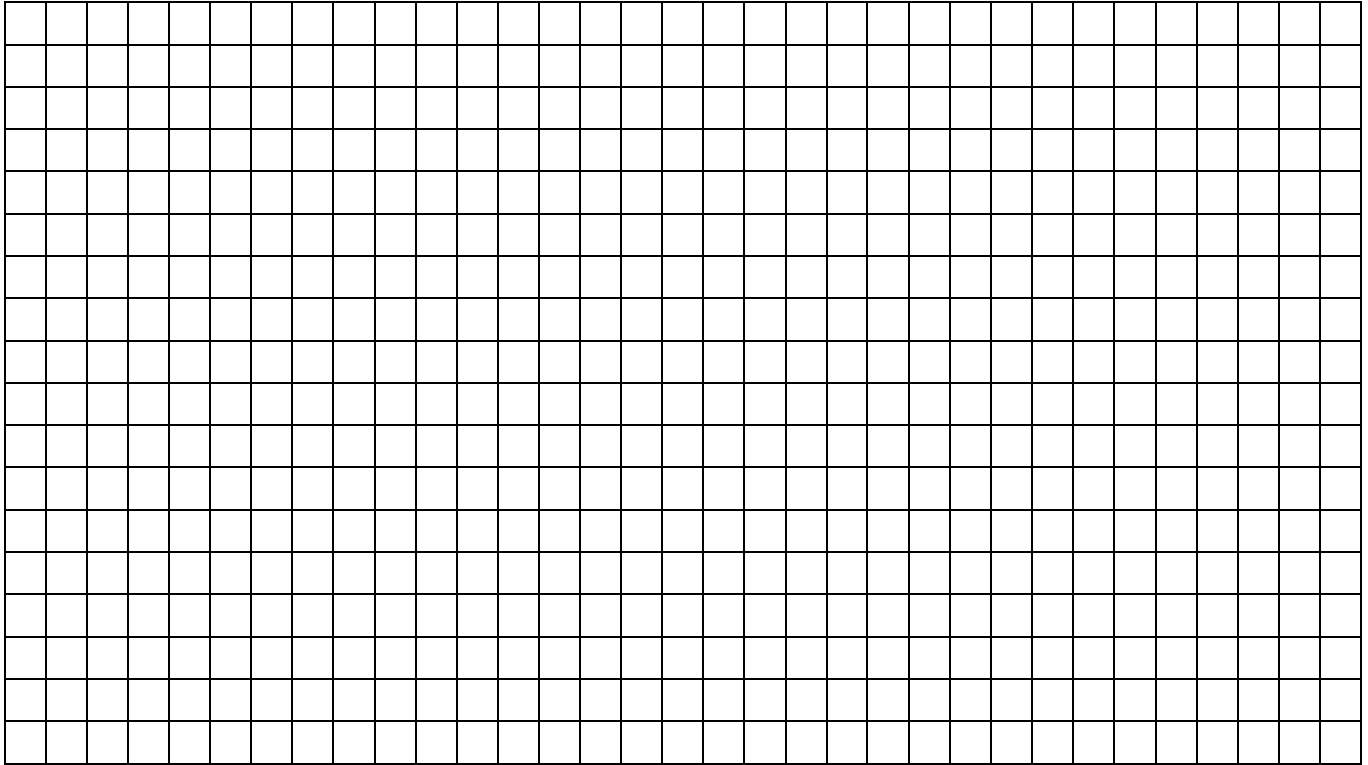

10 × 10　　　10 × 4

4 × 10　　　4 × 4

$14 \times 14 = (10 + 4) \times (10 + 4) = 10 \times 10 + 10 \times 4 + 4 \times 10 + 4 \times 4 = 100 + 40 + 40 + 16 = 196$

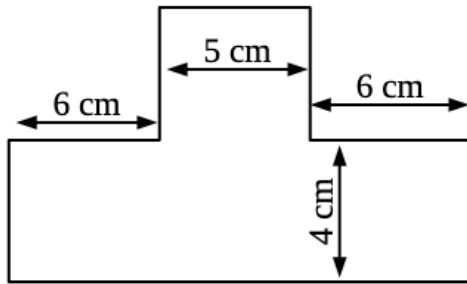Make a sketch to visualize the expression:

a) $16 \times 23 =$

b) $13 \times 28 =$

14 The shape on the drawing is made of a rectangle and a square. Find its perimeter and area.

5 cm

6 cm   6 cm

4 cm

P = _____

A = _____

15 Compare:

205dm _____ 2500cm   1m 5cm _____ 11dm 5cm   3m 4dm _____ 350cm

98dm _____ 980cm   50dm _____ 5m 10cm   69cm _____ 6dm 9cm

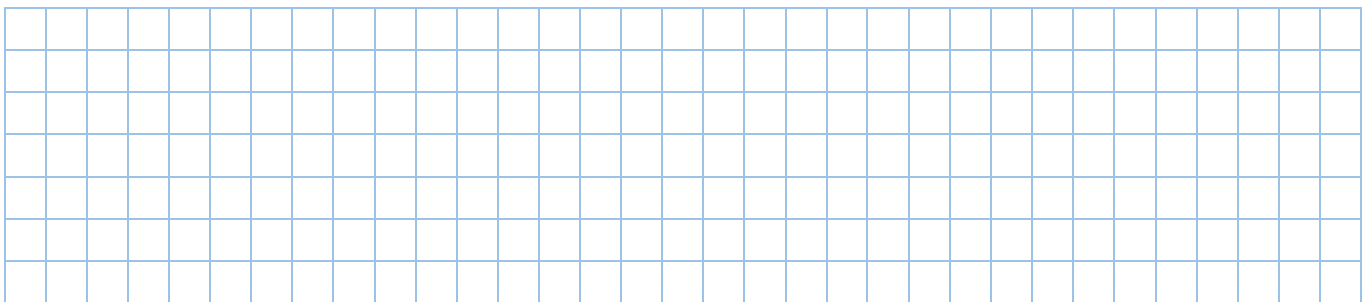**16** Calculate in columns:

$899 + 1512 =$ $308 + 2011 + 89 =$ $8506 - 658 =$

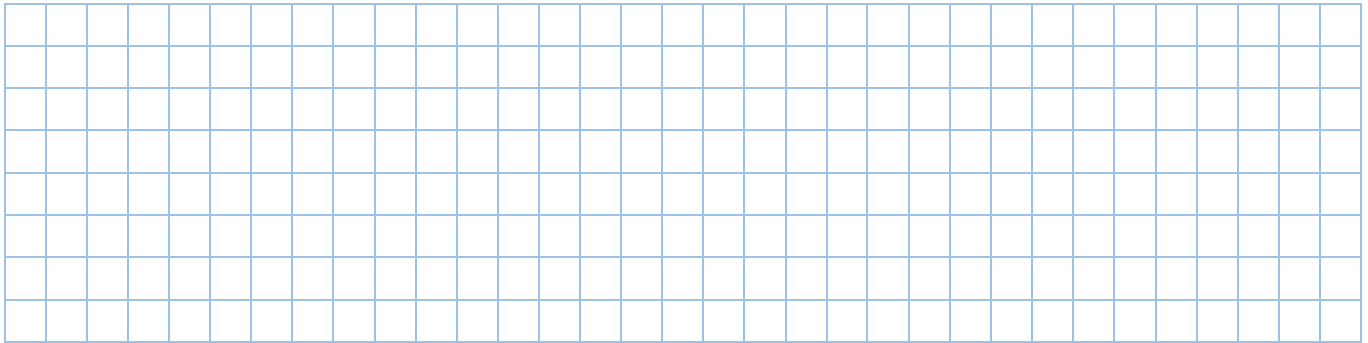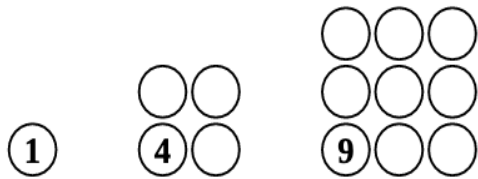**17** Multiply (in columns):
a) $812 \times 16 =$ b) $406 \times 204 =$ c) $123 \times 590 =$

18 a) Do you remember "square" numbers? Construct the next two. What is the pattern?

① (1)   ④ (4)   ⑨ (9)

b) Do you remember "triangle" numbers? Construct the next four. What is the pattern?

1   3   6