## school <br> nova

## Homework 20

1. Find out the rules for each table and fill in the empty boxes:

|  | 1 | 2 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |
| 2 |  | 4 |  |  |
| 3 | 4 |  |  | 7 |
| 4 |  |  |  |  |


|  | 2 | 4 | 5 | 7 |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  | 17 |
| 3 |  | 34 |  |  |
| 6 |  |  |  |  |
| 8 |  |  | 85 |  |

2. Using any grid paper draw rectangles with an A (area) equal to:
a) 24 unit squares;
b) 30 and c) 36

How many rectangles you can draw in each case?
a) $\qquad$ b) $\qquad$
c) $\qquad$
3. Try to figure out the pattern and find the missing number:

4.

The area of a rectangle is $14 \mathrm{~cm}^{2}$ and it's length is 7 cm .
What is the width this rectangle? $\qquad$
5. Convert the measurements:
$1 \mathrm{~m}=10 \mathrm{dm}=100 \mathrm{~cm}$
$1 \mathrm{~m}^{2}=100 \mathrm{dm}^{2}=10000 \mathrm{~cm}^{2}$
$400 \mathrm{~cm}=\ldots \mathrm{dm} \quad 400 \mathrm{~cm}^{2}=$ $\qquad$ $\mathrm{dm}^{2}$
$700 \mathrm{dm}^{2}=$ $\qquad$ $\mathrm{m}^{2}$ $\qquad$ $\mathrm{cm}=$ $\qquad$ dm
$400 \mathrm{~cm}=$ $\qquad$ m
$6 \mathrm{~m}^{2}=$ $\qquad$ $\mathrm{dm}^{2}$
$2 \mathrm{dm}^{2}=$ $\qquad$ $\mathrm{cm}^{2}$
$50 \mathrm{dm}=$ $\qquad$ $\mathrm{cm}=$ $\qquad$ m
$800 \mathrm{dm}^{2}=$ $\qquad$ $\mathrm{m}^{2}$
6.

Measure the rectangles and find their areas (A) in square centimeters and their perimeters $(\mathrm{P})$ in centimeters:

$\mathrm{A}=$ $\qquad$
$\mathrm{P}=$ $\qquad$

$\mathrm{A}=$ $\qquad$
$\mathrm{P}=$ $\qquad$

$\mathrm{A}=$ $\qquad$
$\mathrm{P}=$ $\qquad$
7.

Split each shape into two identical shapes by drawing along the grid lines. Show the lines clearly by using a colored pencil.

8. Fill the blanks with numbers:

$$
\begin{array}{ll}
12+(6 \times \ldots)=24 & 29+(6 \times \ldots)=53 \\
19+(6 \times \ldots)=54 & 45+(6 \times \ldots)=93
\end{array}
$$

9. 

Solve the problems:
a) Four kids shared 12 pancakes. How many pancakes did each kid eat?

Check: $\qquad$
b) A mom bought 5 cakes and spent $\$ 25$. How much did each cake cost?

Check: $\qquad$
c) There are 24 cookies total in 6 boxes. How many cookies are in one box?

Check: $\qquad$
d) A boy walked 18 km in 3 hours. How many kilometers did he walk each hour?

Check: $\qquad$
10.

Write the correct numbers in the squares in order to obtain the correct multiplication problems in rows and columns.

| $\mathbf{5}$ | $\mathbf{6}$ | 30 |
| :--- | :--- | :--- |
| $\mathbf{3}$ | $\mathbf{8}$ | 24 |
| 15 | 48 |  |


11. Once upon a time there lived three kittens: a white kitten, a gray kitten, and a red kitten. Each of the kittens had it's own house:


The gray kitten did not live in the first house and the white kitten lived in the second house. Find the houses where each kitten live. Follow the reasoning to solve the problem and write in the numbers of the houses:

Did not live in the house $\qquad$ , therefore he lived either in the house
$\qquad$ or in the house $\qquad$ .


Lived in the house $\qquad$ . Therefore $x=3$
lived in the house $\qquad$
Thus
 lived in the house $\qquad$ .


Check the correct statements and X the incorrect statements 30 Did not live in the third house
25 Lived neither in the first nor in the second house
( 00 3) Lived next to


Lived either in the first or in the second house
-20 ${ }^{2}$ ) Did not live next to
(a) On each of these grids complete the shading so that the pattern has reflection but not rotation symmetry.

(b) On each of these grids complete the shading so that the pattern has rotation but not reflection symmetry.

(c) On each of these grids complete the shading so that the pattern has reflection and rotation symmetry.


