## Homework for Lesson № 9

## 1 Complete the drawings and write expressions to solve the word problems

Roses come in bunches of 7, peonies come in bunches of 5 . How many flowers are in $\boldsymbol{w}$ bunches of roses and $\boldsymbol{q}$ bunches of peonies?


Mike runs 2 miles every weekday and 5 miles every weekend day. How many miles does
 Mike run in a week?

Bananas come in 7 kg boxes and apples come in 5 kg bags. Altogether these fruits weigh 53 kg . How many boxes are there if there are 5 bags of apples?

Mike has been making 3 origami frogs a day for 6 days. Lisa has been making 4 origami

53
 cranes a day for $\boldsymbol{x}$ days. How many origami animals did they make together?

2 Complete:
$1 \mathrm{~kg} \times 4=$ $\qquad$ $1 \mathrm{~m} \times 7=$ $\qquad$ 1 egg $\times 4=$ $\qquad$
$q \times 3=$ $\qquad$
$1 \sec \times 6=$ $\qquad$
$x \times 3=$ $\qquad$

## 3 Analyze and solve the equations

| $\boldsymbol{x}$ | $\times$ | 7 | - | 2 | 2 | $=$ | 4 | 1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\boldsymbol{x}$ | $\times$ |  | 7 |  |  |  | 4 | 1 |  |




4 Solve the equations in you notebook and copy your answer here:

$$
\begin{array}{lll}
9 \times y-21=15 & y \times 5-18=22 & (x+2)-22=58 \\
y= & y= & x=
\end{array}
$$

5 Bananas are packed in $\boldsymbol{m} \mathrm{kg}$ per box.
Apples are packed in $w \mathrm{~kg}$ per bag. There are 4 boxes of bananas and 9 bags of apples.

Explain the meanings of the expressions that
 produce meaningful results and identify the ones that do not.

| $\boldsymbol{m} \times 4$ |  |
| :---: | :--- |
| $\boldsymbol{w} \times 9$ |  |
| $4+9$ |  |
| $\boldsymbol{m} \times \boldsymbol{w}$ |  |
| $\boldsymbol{m}-\boldsymbol{w}$ |  |

Fill in the tables

| $\boldsymbol{x}$ | 19 | 315 |  | 217 |  | 116 | 71 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 248 |  | 74 | 392 | 224 |  | 200 |
| $\boldsymbol{x}+\boldsymbol{y}$ |  | 425 | 151 |  | 519 | 308 |  |


| $\boldsymbol{x}$ | 204 | 542 |  | 419 |  | 190 | 264 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 9 |  | 160 | 173 | 114 |  | 209 |
| $\boldsymbol{x}-\boldsymbol{y}$ |  | 231 | 108 |  | 357 | 73 |  |


| $\boldsymbol{x}$ | 63 | 28 | 32 |  | 81 | 42 | 48 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ | 9 |  | 4 | 5 |  |  | 8 |
| $\boldsymbol{x} \div \boldsymbol{y}$ |  | 7 |  | 7 | 9 | 7 |  |


| $\boldsymbol{x}$ | 7 |  | 8 | 5 |  |  | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\boldsymbol{y}$ |  | 5 |  | 8 | 9 | 6 |  |
| $\boldsymbol{x} \times \boldsymbol{y}$ | 63 | 35 | 48 |  | 27 | 24 | 18 |

7 Move the points according to the rule:
$\mathrm{J}_{1}(\quad, \quad) \rightarrow \mathrm{J}_{2}(\quad, \quad)$
$\mathrm{K}_{1}(\quad, \quad) \rightarrow$ $\qquad$
$P_{1}(\quad, \quad) \rightarrow$

Try to find coordinates of $S_{2}$ without plotting:


$$
S_{1}(1,5) \rightarrow S_{2}(\quad)
$$

8 What expression does each program below evaluate?
(1): $36 \div x$
(1): $21+509$
(1): $y-12$
(2): $22+(1)$
(2): $\boldsymbol{q} \times(1)$
(2): $\boldsymbol{w} \div(1)$

9 Construct a rhombus $\boldsymbol{A B C D}$ with sides 5 cm . Describe your algorithm.

1. Plot $\qquad$
2. $\qquad$
3. $\qquad$
4. 


${ }^{\circ} \mathrm{C}$

10 Try to construct rhombus $\boldsymbol{K L M T}$ with sides 3 cm . Describe your algorithm.

1. Plot $\qquad$
2. $\qquad$
3. $\qquad$
4. $\qquad$

Which step of the algorithm failed? $\qquad$
Why? $\qquad$

Solve the word problems:
A. An ant moves 4 cm every second. How far
 does it move in 6 seconds?
B. An ant moves 4 cm every second. How far does it move in $\boldsymbol{t}$ seconds?
C. An ant moves $\boldsymbol{v} \mathrm{cm}$ every second. How long does it take to move $\boldsymbol{d} \mathrm{cm}$ ?

D. A river flows 6 km in an hour. How long will it take a raft to drift 42 km downstream?


## 12 <br> For each equation choose the correct diagram. Use it to solve the equations and then check your answer.






There is a bug on the outside of each of the 3D shape, on hidden face. Color that face in yellow.

The bug crawls across all the vertical faces of the shape and returns to its original position. Trace the visible part of its path with a solid lines and the hidden part with a dashed one.


Complete the graphs according to the description.

| Each of five cats is a friend of all others | Cats that eat ... |  |
| :---: | :---: | :---: |
|  | ... lunch together | ... dinner together |
| $\begin{array}{ccc}  & \bullet 1 & \\ 2^{\bullet} & & \\ & & \\ & & \\ 3^{\bullet} & & \bullet 4 \end{array}$ |  |  |

Connect all cats that ...

| ... don't eat | together | ... don't eat neither lunch nor dinner together (don't eat together at all) |  | ... don't eat lunch together |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| $2^{\bullet}$ |  | $2^{\bullet}$ | $\bullet 5$ | $2^{\bullet}$ | ${ }^{\bullet} 5$ |
| $3^{\bullet}$ |  | 3 ${ }^{\text {- }}$ | -4 | $3{ }^{\bullet}$ | -4 |

15 Meet our new friends Fluffy and Puffy from the Cat Island.

Jake The Mouse asked them: Which of you two is older?

Fluffy said: I am older.
Puffy said: I am younger.
At least one of them was lying. Who is older?


