

## 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 w bunches of roses and q bunches of peonies?

1

Mike runs 2 miles every week day 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 cranes a day for x days. How many origami animals did they make together?

2 Complete: 1 kg × 4 = \_\_\_\_\_ 1 m × 7 = \_\_\_\_\_ 1 egg × 4 = \_\_\_\_\_  $q \times 3 = \____$  1 sec × 6 = \_\_\_\_\_  $x \times 3 = \_____$ 



R

Р







9 · y - 21 = 15  $y \times 5 - 18 = 22$  (x + 2) - 22 = 58  $y = \_\_\_$   $x = \_\_\_$ 

**5** Bananas are packed in *m* kg per box. Apples are packed in *w* 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.



<b>m</b> × 4	
w × 9	
4 + 9	
m × w	
<i>m</i> – <i>w</i>	

X	19	315		217		116	71
у	248		74	392	224		200
<i>x</i> + <i>y</i>		425	151		519	308	
				1			
X	204	542		419		190	264
у	9		160	173	114		209
x - y		231	108		357	73	
			1		1	1	
	1	1	I	1	1	1	1
X	63	28	32		81	42	48
у	9		4	5			8
x : y		7		7	9	7	

x	7		8	5			3
y		5		8	9	6	
$x \times y$	63	35	48		27	24	18

7 Move the points according to the rule:

 $J_1(\quad,\quad) \rightarrow J_2(\quad,\quad)$ 

Fill in the tables

6

- $K_1($  ,  $) \rightarrow$ \_\_\_\_\_
- $P_1(,) \rightarrow$

## *Try to find coordinates of* S<sub>2</sub> *without plotting:*

)

 $S_1(1, 5) \rightarrow S_2($ 



 8
 Which expression does each program evaluate?

 1): 36: x 1): 21 + 509 1): y - 12 

 2): 22 + 1 2):  $q \times 1$  2): w: 1 

**9** Construct kite *ABCD* with the following sides: |AB| = |AD| = 5 cm, |BC| = |CD| = 4 cm Describe your algorithm.

Plot *v* = Circ(*A*, \_\_ cm)
 Plot *w* = Circ(*C*, \_\_ cm)
 Find {*B*, *D*} = \_\_\_\_\_
 Connect \_\_\_\_\_\_

**10** Try to construct kite *KLMT* with following sides: |KL| = |KT| = 3 cm. |ML| = |MT| = 2 cm.

1. Plot 
$$g = Circ(K, \_ cm)$$
  
2. Plot  $h = \_$   $K$   
3. \_\_\_\_\_\_  
4. \_\_\_\_\_

Which step of the algorithm failed?

Why?\_\_\_\_\_

A

С

M



For each equation choose the correct auxiliary drawing. Use it to solve the equations and then check your answer.



## **13** T

There is a bug on the outside of each of the 3D shape on its invisible 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 invisible part with a dashed one.



## **14** Complete the graphs according to the description.

Each of five cats is a friend of all others	Cats that eat			
	lunch together	dinner together		
•1 2• •5 3• •4	$\bullet 1$ $2 \underbrace{5}_{3} \underbrace{5}_{4}$	2 $1$ $5$ $3$ $4$		

Connect all cats that ...

don't eat di	nner together	don't eat <b>ne</b> <b>nor</b> dinner tog eat together at	ether (don't	don't eat lunch together	
•1 2• • 5		•1 2• •5		•1 2• • 5	
3 •	• 4	3 •	• 4	3•	• 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?

Insert figure From 7B HW **HW9 2015** 

