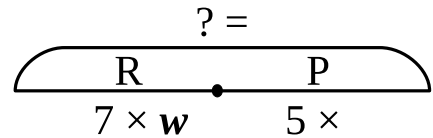# Lesson 9 HW

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 **w** bunches of roses and **q** bunches of peonies?
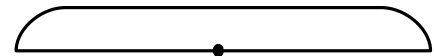
$? =$

R	P
$7 \times w$	$5 \times$

_____

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

W	WE

_____

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?

53

B	A
$7 \times ?$	5×5

_____
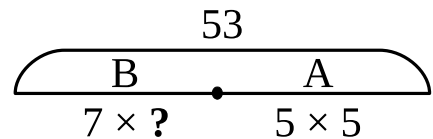
Mike has been making 3 origami frogs a day for 6 days. Lisa has been making 4 origami cranes a day for **x** days. How many origami animals did they make together?

_____

2 — Complete:

$1\ kg \times 4 =$ _____

$1\ m \times 7 =$ _____

$1\ egg \times 4 =$ _____

$q \times 3 =$ _____

$1\ sec \times 6 =$ _____

$x \times 3 =$ _____

3 Analyze and solve the equations

x	$\times$	7	$-$	2	2	$=$	4	1
x	$\times$	7	$=$	4	1	$+$		
x	$\times$	7	$=$					
x	$=$							
x	$=$							

x ⟳ □ ⟳ □

y ⟳ □ ⟳ □
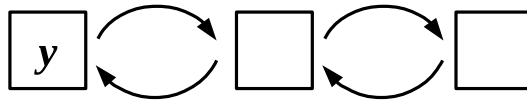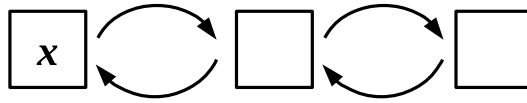
| y | : | 4 | $+$ | 2 | 1 | $=$ | 2 | 7 |

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

$9 \times y - 21 = 15$

$y \times 5 - 18 = 22$

$(x + 2) - 22 = 58$

$y = $ _____

$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.

$m \times 4$	
$w \times 9$	
$4 + 9$	
$m \times w$	
$m - w$	

6 Fill in the tables

x	19	315		217		116	71
y	248		74	392	224		200
$x + y$		425	151		519	308	

x	204	542		419		190	264
y	9		160	173	114		209
$x - y$		231	108		357	73	

x	63	28	32		81	42	48
y	9		4	5			8
$x \div y$		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:

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

$K_1(\quad , \quad) \rightarrow$ _____

$P_1(\quad , \quad) \rightarrow$ _____

Try to find coordinates of S_2 without plotting:

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

4 cells ↓

8 What expression does each program below evaluate?

①: $36 \div x$ ①: $21 + 509$ ①: $y - 12$

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

_____   _____   _____

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

1. Plot v = Circ(A, ___ cm)

2. Plot w = Circ(C, ___ cm)

3. Find $\{B, D\}$ = ___ ∩ ___

4. Connect _____

• A

• C

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 = _____

3. _____

4. _____

• K

• M

Which step of the algorithm failed? _____

Why? _____

11 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 t seconds?

_____

C. An ant moves v cm every second. How long does it take to move d cm?

_____

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

_____
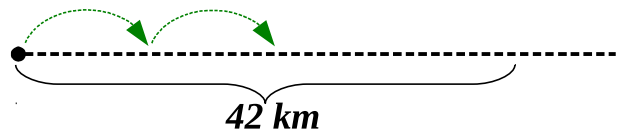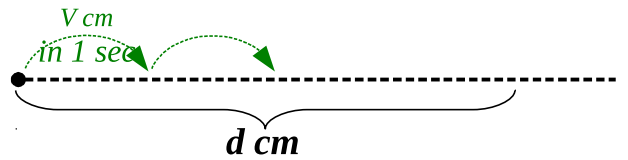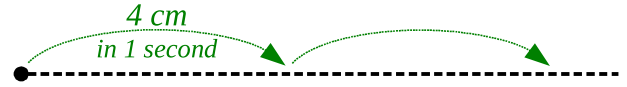
12 For each equation choose the correct diagram. Use it to solve the equations and then check your answer.

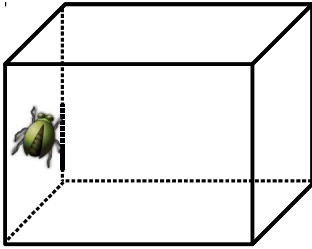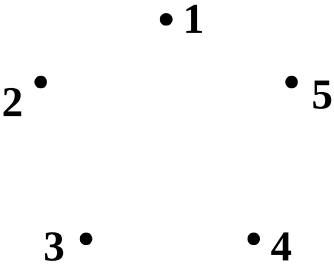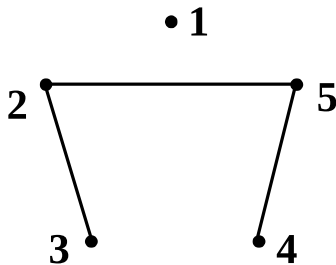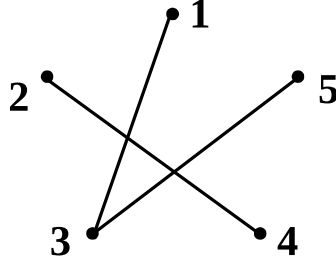$32 - x = 8$
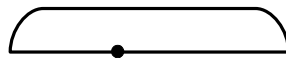
$32 : x = 8$
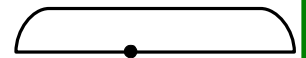
$y \times 5 = 25$
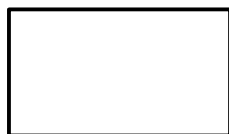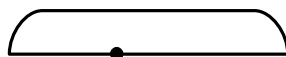
$y + 5 = 25$
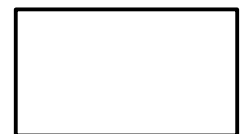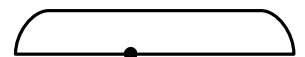
13 There is a bug on each of the 3D shapes, on one of the hidden faces. Color that face yellow.

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 line and the hidden part with a dashed one.
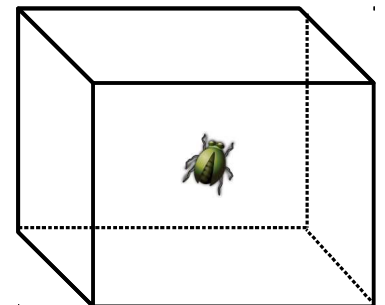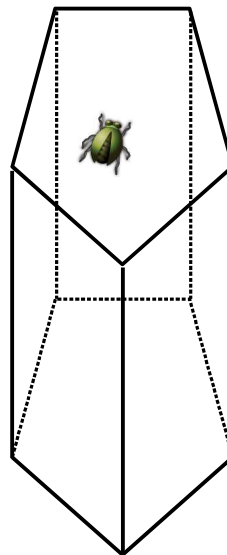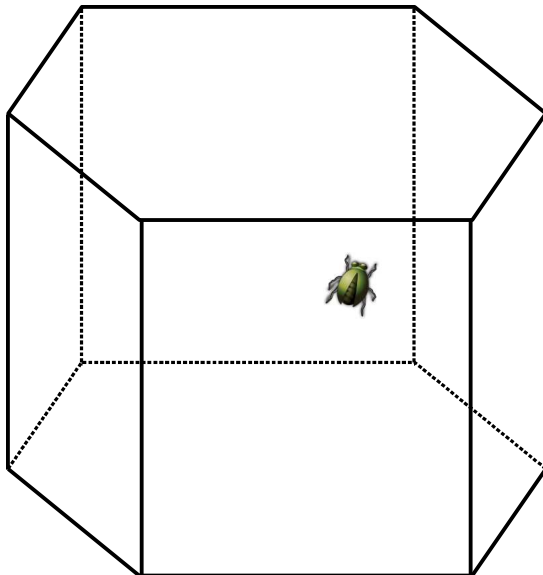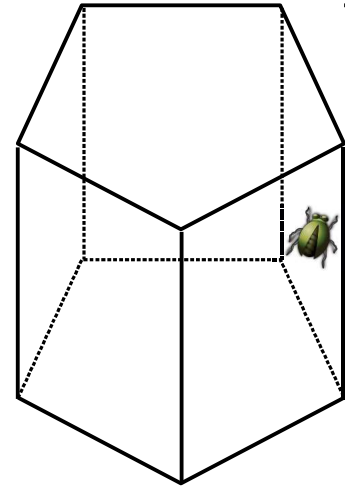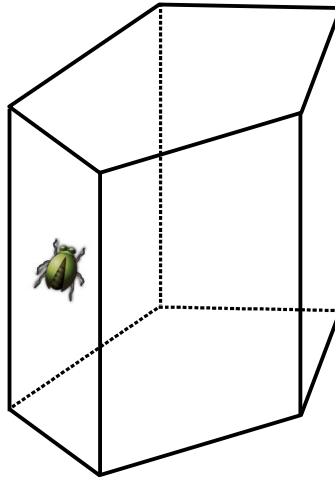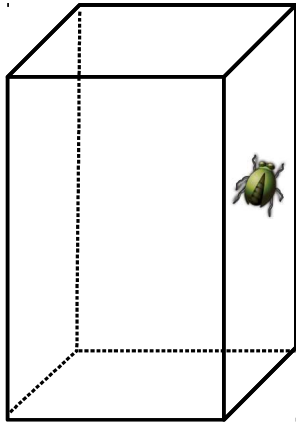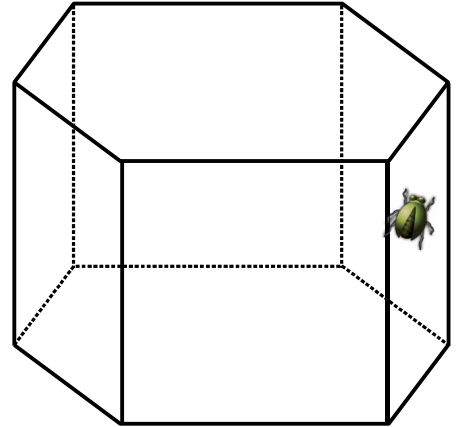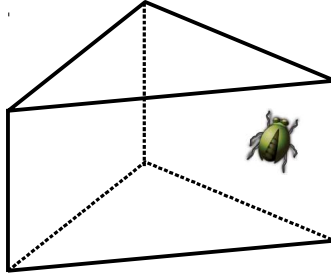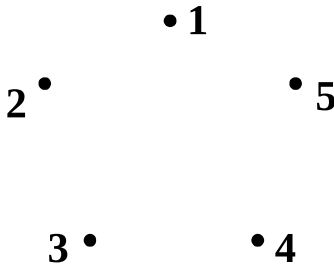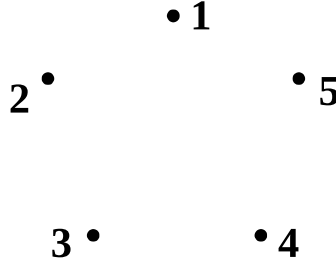
14 Complete the graphs according to the description.

Each of five cats is a friend of all others	Cats that eat …	
	… lunch together	… dinner together

Connect all cats that …

… don't eat dinner together	… don't eat **neither** lunch **nor** dinner together (don't eat together at all)	… don't eat lunch together

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?