school nova™

1.

```
   5 6        7 5        3 7       1 4 5       3 6 4       3 6 8
 +   7      -   9      + 3 5     -   1 8     +   1 7     - 1 5 4
```

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   4 4        2 2        5 3       2 2 2       3 6 7       4 6 3
 x   9      x   8      x   7     x     9     x     7     x     5
```

2

Write a mathematical expression for each problem, solve where possible.

A factory packed **45** boxes of snacks on Monday and **56** boxes on Tuesday.
    a) How many boxes did it pack during Monday and Tuesday?
    b) How many more boxes were packed on Tuesday then on Monday?
	a)_____
	 b)_____

A factory packs 1**6** boxes of snacks on Thursday and ***n*** boxes on Friday.
    a) How many boxes did it pack during Thursday and Friday?
    b) How many more boxes were packed on Friday then on Thursday?
	a)_____
	 b)_____

A factory packs ***m*** boxes of snacks on Monday and ***k*** boxes on Tuesday.
    a) How many boxes did it pack during Monday and Tuesday?
    b) How many more boxes were packed on Tuesday then on Monday?
    c) How many more boxes need to be packed to compete the order of a total ***w***
       boxes for a week?
	a)_____
	 b)_____
	 c)_____

3 Write down the expression and find the value if possible:

     a) Subtract 12 from the sum of 37 and 13   _____

     b) Add 23 to the difference between 70 and 35   _____

     c) Multiply the difference between 19 and 11 by 5   _____

     d) Divide the sum of 12 and 18 by 10   _____

4 Calculate:

$18 - (19 - 10) - 8 =$ _____ $(15 + 35) - (84 - 64) =$ _____

$60 - (98 - 78) + 40 =$ _____ $(20 - 10) + (76 + 14) =$ _____

5 Open up the parentheses:

$(s + 3) + 4 =$ _____ $(f + 4) - (a - 64) =$ _____

$(n + b - d) - 94 =$ _____ $(20 - t) + (w + v) =$ _____

$(d + 8) - (7 - a) =$ _____ $(20 + z) - (7 - a + b) =$ _____

6 Convert the following measurements.

1m=10dm	1dm=10cm	1m=100cm	1cm=10mm

2 m 4dm 3 cm = _____ cm   300 dm = _____ m   5m 9 cm = _____ cm

901 cm = _____ m _____ cm   40 m = _____ dm   56 cm = ___ dm ___ cm

314 cm = _____ dm _____ cm   50 dm = _____ m   6 m 8 dm = _____ cm

6 Convert the following measurements.

1kg=1000g	1L =1000mL

2kg = _____ g   3000mL = _____L

5000g = _____ kg   4L = _____ mL

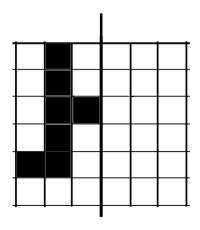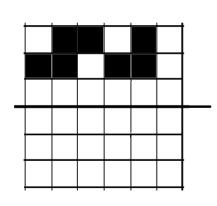9kg = _____g   5000L = _____ mL

7

How can you simplify the following? Remember the orders of operations!

1) $6(5 + a) + 90 \div 10 =$ _____

2) $3 \times 8 + 3(4 - a) =$ _____

3) $4 \times 5 - 2 \times 3 + 25 \div 5 =$ _____

4) $23 + (35 - 4 \times 8) =$ _____

8 Finish the drawing using the line of symmetry:

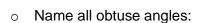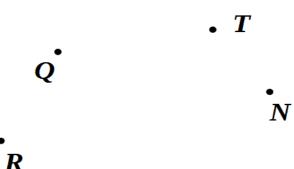**9.**

    a)   Use a ruler.

o   Draw a straight line $\overleftrightarrow{RT}$.

o   Draw a line segment $\overline{FQ}$.

o   Label the intersection M.

o   Draw a ray $\overrightarrow{MN}$

o   Name all acute angles:

o   _____

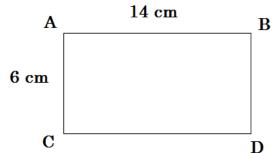o   Name all obtuse angles:

o   _____

• T

Q

N

R

• F

b) Draw a line segment $\overline{AB}$ below. Draw another line segment $\overline{EF}$ in a way that the intersection between $\overline{AB}$ and $\overline{EF}$ is a line segment $\overline{EB}$.

10 Find perimeter (the total length of the sides) of the rectangle ABCD three ways:

A   14 cm   B

6 cm

C   D

1)_____

2)_____

3)_____

11

Find area or side of the rectangle.

$a = 9cm$

$A = 72cm^2$

$b=?$ cm

$a = 25m$

$A = ?$ m^2

$b = 8m$

12

Find the area of a white shape two different ways, if you know that the blue shape is a square with a side of 8 cm.

20 cm

30 cm

1)_____

_____

2)_____

_____

4

13

Find coordinates of the points **C** and **D** as well as the coordinates of the other objects.

C (,)

D (,)

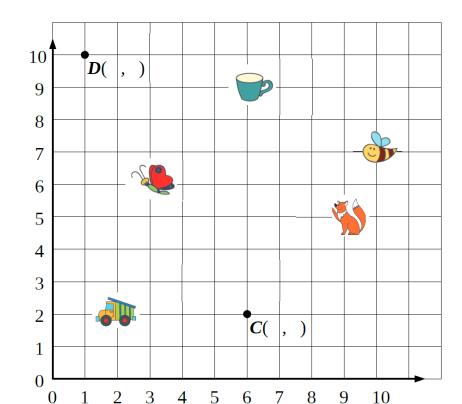 (,)

 (,)

 (,)

 (,)

 (,)

D(,)

C(,)

14

$76 - y = 42$	$x - 76 = 18$	$z - 12 = 95$
$y =$	$x =$	$z =$
$y =$	$x =$	$z =$
Check:	Check:	Check:

$5 \times y = 35$	$x \div 6 = 8$	$z \times 7 = 42$
$y =$	$x =$	$z =$
$y =$	$x =$	$z =$
Check:	Check:	Check: