## school <br> nova

## Homework 13

1. 

Sophia found 2 white marbles, 2 black marbles, and 2 yellow marbles. She arranged them along 3 line segments. In each of the three line segments, she had a marble of each color. How is that possible? Draw a solution below.
2.
a) Write an arithmetic operation on each arrow:

b) Construct and solve equation, don't forget to check your answer!


## 952



| 2 | 1 | 3 | + | $x$ | $=$ | 2 | 3 | 2 |  |  |  |  |
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|  |  | 9 | 5 | 2 | - | $x$ | $=$ | 5 | 7 | 3 |  |  |  |
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3. Name the triangles shown in the drawing.

Label the points of intersection of their sides with points $\boldsymbol{M}$ and $\boldsymbol{N}$. What is the shape of the intersection of these triangles?
$\qquad$

4. Shade the intersections of two polygons shown in each picture.


Draw two triangles whose intersection is: PRACTICE ON A SEPARATE PAPER!

| a triangle | a point | a rectangle | a line segment |
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6. There are $\boldsymbol{a}$ books on the first shelf and $\boldsymbol{b}$ on the second. If $\boldsymbol{b}>$ a, how many more books are on the second shelf than on the first? $\qquad$
There are $\mathbf{3}$ books on one shelf and $\mathbf{6}$ books on another. How many books will remain on both shelves after 4 books are taken away? $\qquad$
There are $\boldsymbol{a}$ books on one shelf and $\boldsymbol{b}$ books on another. How many books will remain on both shelves after $\boldsymbol{c}$ books are taken away? $\qquad$
7. 

Mike thought of a number. He subtracted 9 from it, and then added 27. Then he added another 6 to the result and the result of all those operations was 37 . Which number did Mike think of? Write an equation and solve it.

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8. Write expressions for each scheme: USE PARENTHESIS!

Number the order of operations and calculate the values of expressions:
a)


| 7 | 75 | 50 | - | ( | 2 | 0 | 3 | + | 4 | 9 | ) | $=$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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9. Guess the rule for each "black" box below. Using those rules, find a rule for the last box.

10. 

The length of a newborn baby whale was 5 m 3 dm 2 cm . Once he grew up he was 32 m 6 dm 7 cm long! How much did he grow?

11. Write down an equation for each operation and solve it.

12. Three girls together had 20 pencils. Anna and Olga together had 15 pencils. Olga and Catherine together had 12 pencils. How many pencils does each girl have?
13. Change the drawing twice according to the rules:

14. There are four SETs on this picture! Find them all! Cross out the cards that belong to a set in each picture. Same group of 9 cards but 4 different sets.


