Math 4B. Homework #24 is due April, 19-th (no class next week !)

1. Find the largest and smallest of the following numbers: $-\frac{15}{17}$, -1, $-\frac{3}{119}$, 0.2, 1, 0

2. The teacher wrote a few problems with decimals on the board, but Henry erased all the decimal points. Put the decimal points back into the expressions to make them correct.

   $32 + 18 = 5$ $\qquad$ $63 - 027 = 603$

3. Compute:

$3 + 2 \cdot (-6 - (-9)) =$ $\qquad$ $1 - (5 + (-4)) =$ $\qquad$ $|(-5) + 4| =$

$|(-6) + (-9)| =$ $\qquad$ $|5 + (-4)| =$ $\qquad$ $|-2 - 6| =$

4. Write the algebraic expression for the following problems and evaluate it for given values of variables:

a. There are *n* pears in the basket, which is $\frac{3}{7}$ of all fruits in the basket. How many fruits are there in the basket? $(n = 21)$

b. There is *x* candy in a box. Chocolate candies are $\frac{4}{9}$ of all candies. How many not chocolate candies are there in the box? $(x = 36)$

5. The volume of water increases by $\frac{1}{11}$ when it freezes. By how much the volume of ice does decrease when it melts?

6. Solve the inequality:

$$2(4x - 3) \leq 5x + 30$$

7. Rewrite the following expressions without parenthesis (use the distributive properties):

   Example:

$$-3(x - y) = (-3) \cdot x + (-3) \cdot (-y) = -3x + 3$$

   a. $-(a - b)$
   b. $-3(c + d)$
   c. $2(-x + y)$
   d. $x(-x + 2y + 1)$
   e. $-y(x - y + 3)$

8. Using compass and ruler construct as shown in and using references from Handout 23:
   a. Angle bisector
   b. Altitude of a triangle
   c. Median of a triangle

9. Using ruler draw a triangle on a graphing paper, draw three medians in it. Try constructing the medians as shown here https://www.mathopenref.com/constmedian.html Did all three of your medians intersect in one point? Cut your triangle, try to balance it on a sharpened pencil at the point of intersection of the medians. It should balance!

   Bring it to class to show.