Math 4d, Homework 20.

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1. In order to prepare a homemade dried fruits and nuts mix Mary took 6 parts of raisins, 5 parts of dried cranberries and 3 parts of walnuts. Cranberries and walnuts altogether weighted 2 kg 400 g. What was the weight of the mix that Mary prepared?

2. The ratio of roses and hibiscuses in the garden is 9:11. What is the total number of flower bushes in the garden, if there are 99 rose bushes?

3. The ratio of cashews and walnuts in a nut mixture is 2:3, total weight of the mixture 150g. How much cashews and walnuts are in the pack of mixture?

4. Draw the segment AB = 6cm. Mark the point C in such a way that the ratio of the length of the segments are

   a. $\dfrac{|AC|}{|BC|} = 1$,   b. $\dfrac{|AC|}{|BC|} < 1$;   c. $\dfrac{|AC|}{|BC|} > 1$;   d. $\dfrac{|AC|}{|BC|} = 2$

5. Compute by the most convenient way:

   $5.1 + 8.4 - (-5.1) - 10.2 - (+8.4) - 9.8 - (15);$

   $-7.81 + 9.64 - 5.32 - (+7.81) + (5.32) - 9.64;$

   $13.4 + 8.22 - (+1.3) - (-4.78) + (-8) - 10 - 3.4$

   $-21 + (-0.68) - (-7.4) + (-3.2) - (+6.8) + 21.68;$

   $-48 + 51 \div 10 + 4.8 \cdot 10 + (-6.4) - 51 - (-7.2) - (+3);$

   $93 + 8.23 \cdot 10 - (-9.6) + (-82.3) + 9.3 \cdot (-10) - (+0.4);$

   $2.4 \div (-2) - 3.8 - (-5.9) - (+6.2) + 1.2 + 4.1;$

   $-(-7.7) + (-8.1) \div 9 + 0.9 - (+1.4) + 15.4 \div 2 - (-8.2);$

6. There are 21 juice bottles out of which 7 bottles are full, 7 are half-full and the remaining 7 are empty to be divided among 3 friends equally. You don't have any measuring device. How will you divide them (both bottles and juice) equally?

7. In the first box there are twice as many pencils as in the second. Mary took 5 pencils from the first box and put 3 pencils in the second. After that, the number of pencils in both boxes became equal. How many pencils was in each box at the beginning?

8. Write the list of coordinates in order they need to be connected to get the picture. Start from the point (3, -1).