Math 4c. Homework 19.

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1. 15% of the participant of math Olympiad solved 1 problem, 25% of the participant solved 2 problems, and the rest 24 students solved all three problems. Haw many students did participate in the math Olympiad?

2. How number A will change if
   a. First, number A was increase by 25%, then decrease by 40%?
   b. First, number A was decrease by 60%, then increase by 80%?

3. Peter asked his father, how old is he. "If you add four years to the half of my age, you will know how old I was 14 years ago" answered the father. How old Peter's father is?

4. To prepare 4 portions of seasoning you need $\frac{1}{3}$ teaspoon of salt, $\frac{1}{4}$ teaspoon of pepper and $\frac{1}{2}$ teaspoon of cloves. How many teaspoons of salt, pepper, and cloves do you need to prepare 32 portions?

5. A pie recipe calls for 3 eggs, 1.5 cup of sugar, and $\frac{2}{3}$ cup of flour. How much sugar and flour do you need to prepare a dough using 9 eggs?

6. In a dried fruit mix, there are 7parts of dried apples, 4 parts of dried pears and 5 parts of dried apricots. (So, it can be said, that the amount of apples, pears, and apricots should be mixed in the ratio 7:4:5). What is the weight (how many grams) of apples, pears, and apricots in the fruit mix, if the total weight of the mix is 1600g?

7. Evaluate (show your work!):

   a. $\dfrac{1\frac{1}{3} \cdot 2\frac{3}{11} \cdot 3\frac{1}{2}}{\frac{1}{2} \cdot 4\frac{1}{6} \cdot 3\frac{9}{11}};$ b. $\left(1.5 : \frac{1}{3} - \frac{3}{8} : 0.25\right) \cdot 3.2 - 3.2 \cdot \frac{5}{8}$

8. Solve the following equation:
   a. $3x + 14 = 35$
   b. $\frac{1}{2}x + 9 = 17$
   c. $1.5x - 3 = 2$
   d. $5 - 0.2z = 1$

9. Translate the rectangle corresponding to the blue arrow. Rotate the triangle around the point L(0,0) according to the blue arrow. Write the new coordinats of the shapes.