Math 4e. Homework 21.

1. Write the following numbers as the power of base 10:
   Example:
   $\frac{1}{100} = \frac{1}{10^2} = 10^{-2}$
   10, 100, 1000, 10000, 100000, 1000000
   0.1, 0.01, 0.001, 0.0001, 0.00001, 0.000001

2. What is the last digit of a number
   2^{22}; 3^{33}; 4^{44}; 5^{55}

3. **A lot or a little:**
   a) 5 math lessons in one day and in one month;
   b) a weight increase of 1 gram for an ant and for an elephant.
   Come up with your own examples when the same value gives a different qualitative evaluation of a certain situation.

4. 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 quantity 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?

5. 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?

6. 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?

7. Anna ate $\frac{1}{3}$ of all the candies and 2 more candies. Mary ate $\frac{1}{4}$ of all the candies and 1 more candy. Then Tina ate half of the candies that were left after Anna and Mary. After that, $\frac{1}{6}$ of the original number of candies remained. How many candies were there at the beginning?

8. A yacht set sail on Monday at noon. The voyage will last for 80 hours. Name the day of the week and the time of its return to port.

9. Evaluate:
   a. $\frac{(2.3 + 5.8) \cdot 3\frac{5}{7}}{(4.9 - 2.3) : \frac{7}{9}}$ $(answer\ is\ 9)$; *b.* $\frac{0.21 \cdot 1.25}{13.6 - 11.1}$ $(answer\ 0.105)$;