

## Math 4a. Homework 6.

Problems marked with \* are more difficult.



1. There are three short stories in a book. Paulina read the first story in  $\frac{1}{3}$  of one hour. She spent  $\frac{1}{6}$  of an hour more reading the second story than reading the first one. The third story she read in  $\frac{7}{12}$  of an hour less than the two previous stories together. How much time did it take her to read this book?

2. Compute:

a)  $\frac{14}{15} \cdot \frac{10}{49} + 5\frac{3}{7}$  ;

c)  $1\frac{3}{11} - \frac{27}{44} \cdot \frac{4}{9}$  ;

e)  $1\frac{2}{3} + \frac{14}{15} \cdot \frac{5}{7}$  .

b)  $\left(1 - \frac{3}{4}\right) \cdot \left(\frac{4}{5} - \frac{3}{4}\right)$  ;

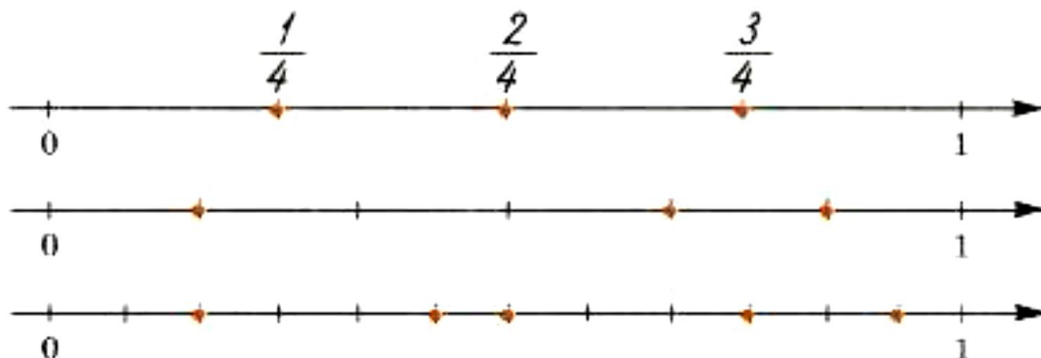
d)  $14 \cdot \left(\frac{1}{2} + \frac{1}{3} + \frac{1}{4}\right)$  ;

f)  $\frac{1}{3} \cdot \frac{6}{7} - \frac{1}{7} \cdot \frac{3}{4}$  .

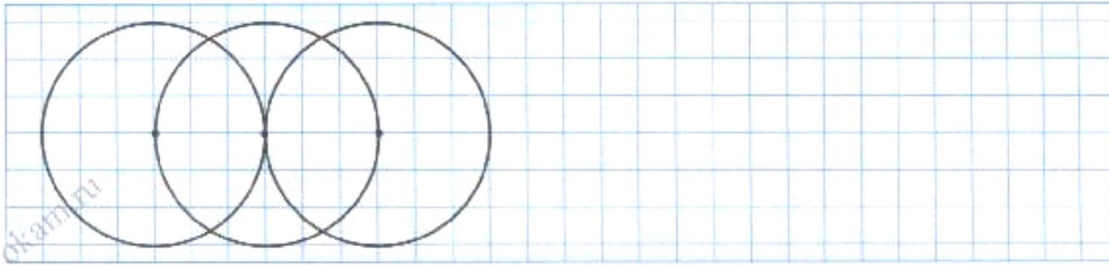
3. Fill the empty spaces in the table below:

a	56		36		72
b	8	6		5	
a · b		108	144		
a ÷ b				14	24

4. On the picture below, put the corresponding fractions above each marked point:

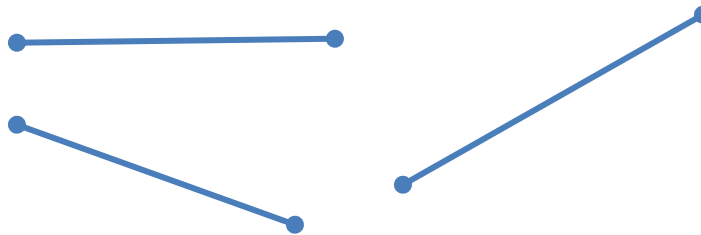


5. Copy the picture below to your notebook. Continue the pattern.



6. \*You need to cut  $\frac{1}{2}$  m from a rope  $\frac{2}{3}$  m long. You don't have any tools to do the measurements. How you can do it?

7. Construct the triangle with the sides as on picture below (use a compass and a ruler)



8. Fill in the missing number to have the right equalities.

$$\frac{2}{5} \cdot \underline{\quad} = 1$$

$$2\frac{1}{2} \cdot \underline{\quad} = 1$$

$$1 : \frac{2}{5} = \underline{\quad}$$

$$1 : \underline{\quad} = \frac{7}{4}$$

$$\underline{\quad} \cdot \frac{12}{11} = 1$$

$$\underline{\quad} \cdot 1\frac{1}{3} = 1$$

$$1 : \frac{12}{11} = \underline{\quad}$$

$$1 : \underline{\quad} = \frac{3}{10}$$

9. \* Peter got a new book. On the first day he read  $\frac{1}{3}$  of the whole book and on the second day he read  $\frac{1}{3}$  of the rest of the book. On the third day, Peter once again read  $\frac{1}{3}$  of the rest of the book and now he needs to read 80 more pages to finish the book. How many pages are there in the book?