

Math 4c. Homework 21.



1. The ratio of roses and hibiscuses in the garden is $\frac{9}{11}$. What is the total number of flower bushes in the garden, if there are 99 rose bushes?
2. 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?
3. 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?
4. Draw the segment $AC = 6\text{cm}$. Mark the point B in such a way that the ratio of the length of the segments are

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

5. There are singers and dancers in our class. $\frac{1}{5}$ of all singers also dance and $\frac{1}{4}$ of all dancers also sing. Are there more singers or dancers in our class?
6. Four brothers were solving math problems. Second brother solved twice as many problems as the first one, third brother solved three times as many as the second, fourth brother solved four times as many as the third. Together they solved 132 problems. How many problems did first brother solved?
7. Which of the expressions below is a mathematical model for the following problem:

7 identical dresses were sewn from c meters of silk. How many meters of silk do you need to sew 12 such dresses?

a. $(c:7):12$, b. $(c:7) \cdot 12$, c. $12:(c:7)$, d. $(c \cdot 7) \cdot 12$

8. Come up with the problems which can be solved by the mathematical models below:
a. $5 + 3 \cdot 5$ b. $48:(12 - 4)$ c. $12 \cdot 5$