

Math 5b, homework 7.



1. 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?
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. The ratio of boys to girls in 6th grade is $\frac{9}{11}$. The ratio of girls to boys in 7th grade is $\frac{31}{29}$. There are 100 and 120 students in 6th and 7th grades correspondingly, what is a ratio of boys to girls at the dance for 6 and 7 grade students, if all students came to the dance?
4. A teacher gave a very difficult problem for the test. Having checked all works, he discovered that the number of girls who solved the problem is equal to the number of boys who didn't. What is greater, the number of students who solved the problem or the number of boys?
5. Sea water contains 5% salt (by weight). How many kilograms of fresh water should be added to 40 kg of sea water to obtain a solution with 2% salt?
6. Evaluate (answer is 5):

$$(2.5 - 0.75) \cdot \frac{4}{7} + \left(\left(3\frac{3}{8} - 2\frac{11}{12} \right) \cdot 1\frac{7}{9} + 2\frac{11}{12} \cdot 1\frac{7}{9} \right) : \left(3.5 : 2\frac{1}{3} \right)$$

7. Positive or negative value of m will make the following equalities true statements?

$$|m| = m$$

$$m = -m$$

$$|m| = -m$$

$$m + |m| = 0$$

$$-m = |-m|$$

$$m + |m| = 2m$$

$$m = |-m|$$

$$m - |m| = 2m$$