

Math 5b, homework 8.



1. To do her homework, Julia solved math problems, wrote an essay, and did a history project. It took her 2 hours and 15 minutes to finish all the assignments. The ratios of the times she spends doing math, writing the essay, and doing history project are 3:2:1. How much time did she spend for each of her subjects?
2. A merchant accidentally mixed candies of the first type (priced at \$3 per pound) with candies of the second type (priced at \$2 per pound). At what price should this mixture be sold to obtain the same total amount, given that it is known that initially the total cost of all candies of the first type was equal to the total cost of all candies of the second type?
3. From a 20-liter can filled with milk, 6 liters were poured out. Which of the following ratios represents the ratio of the amount of milk poured out to the amount remaining?
a. 3:10; *b.* 7:3; *c.* 3:7; *d.* 10:3.
4. Bronze is an alloy of tin and copper. (Tin and copper are metals; they are melted together to get an alloy which is called bronze). How much copper and how much tin are there in the 80 kg piece of bronze, if the ratio of tin to copper in bronze is 3 to 17?



5. Solve the equations:
a. $2 \cdot (x - 9.5) - 3 \cdot (x + 1.8) = -4.4$; *b.* $5.7 - (x - 11.3) = 2 \cdot (x + 3.7)$;
c. $-4 \cdot (x - 7.6) = 8 \cdot (x - 1.8) - 3.2$; *d.* $15.3 - 2 \cdot (x - 0.9) = -0.7 + 3 \cdot (x - 2.4)$;