

Math 4a. Homework 18.



1. A swimming pool can be filled in 12 hours and emptied in 18 hours. One day, while the pool is being filled, the drain is accidentally left open. How long will it take to fill the pool with the drain open?
2. Winnie the Pooh can eat 10 kg of honey in 4 hours, and Little Piglet can eat 10 kg of honey in 5 hours. How much honey can they eat together in 3 hours?
3. It takes Julia 45 minutes to drive from home to work, and she drives at a speed of 55 miles per hour. How far is her office from her home?
4. Julia's friend Emily lives 2.4 miles from Julia. How much time does Julia need to walk to Emily's house if she walks at a speed of 3 miles per hour?
5. Today, Julia and Emily decided to meet between their houses. They started walking at noon toward each other. At what time will they meet and how far from Julia's house will the meeting point be if Julia is walking at a speed of 2.5 miles per hour and Emily is walking at a speed of 2.3 miles per hour (distance between houses is 2.4 miles)?
6. Solve the equations:
 - a. $\frac{1}{2}x + \frac{3}{8} = \frac{1}{4}x + \frac{5}{8}$;
 - b. $2.1y - 2.3 = 6.7 - 1.5y$
7. 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 equally among 3 friends. You don't have any measuring device. How will you divide both the bottles and juice equally among them?
8. Evaluate (answer is $1\frac{3}{4}$):

$$\left(1\frac{2}{5} + 3.5 : 1\frac{1}{4}\right) : 2\frac{2}{5};$$

