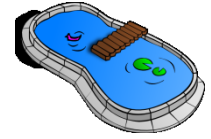


1. Solve the following equation for q : $\frac{1}{p} + \frac{1}{q} = \frac{1}{f}$

2. A passenger train can travel 240 miles in the same amount of time it takes a freight train to travel 160 miles. If the rate of the freight train is 20 miles per hour slower than the rate of the passenger train, find the average rate of each. (Hint: find an expression for the time it takes the passenger train to travel 240 miles, and the time it takes for the freight train to travel 160 miles, then set them equal.)

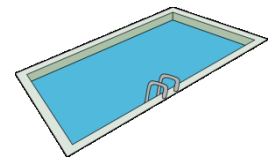
3. A pond can be filled by one pipe in 8 hours and by a second pipe in 24 hours. How long will it take using both pipes to fill the pond?



4. Working with your cousin, you can refinish a table in 3 hours. Working alone, your cousin can complete the job in 4 hours. How long would it take you to refinish the table working alone?



5. A pool can be filled by a pipe in 3 hours. It takes 3 times as long for another pipe to empty the pool. How long will it take to fill the pool if both pipes are open?



Q: What can't you keep until you have given it?