

Bangalore Mathematical Institute
Faculty of Mathematics

IIT Foundation Weekly – QUIZ #13
Faculty:G Ekaveera Kumar

Topic:Linear equations

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1. Urmila sold a table and a chair for Rs 1050 , thereby making a profit of 10% on the table and 25% on the chair. If she had taken a profit of 25% on the table and 10% on the chair she would have got Rs 1065. Find the cost price of each.

2. It can take 12 hours to fill a swimming pool using two pipes. If the pipe of larger diameter is used for 4 hours and the pipe of smaller diameter for 9 hours, only half the pool can be filled.How long would it take for each pipe to fill the pool separately?

3. Solve

$$\frac{1}{x+y} - \frac{1}{2x} = \frac{1}{30}$$
$$\frac{5}{x+y} + \frac{1}{x} = \frac{4}{3}$$