Elementary Algebra Skill

Setting Up and Solving Work Problems

1. An experienced painter can paint a house in 3 days. He hired an apprentice who can paint the same house in 7 days. How long will it take them to paint the house if they worked together?

2. Tsedey can shred 100 documents twice as fast as Cheryl can. If it takes them 45 minutes to shred 100 documents together, how fast can Cheryl shred 100 documents if she worked alone?

3. A boy takes an hour longer than his Dad to wash their three cars. Working together it takes them only 1 hour and 12 minutes. Find how fast each can wash the three cars working alone.

4. Tom can mow the lawn in 40 minutes. When his brother helps him they can mow the lawn together in 24 minutes. Find how long it takes his brother to mow the lawn by himself.

5. Tina can eat a whole pizza in one hour. When she eats pizza with her friend Sandy they finish it in 20 minutes. How fast can her friend Sandy eat the whole pizza?

Answers to Setting Up and Solving Motion Problems
1. 2.1 days
2. 145 minutes
3. 2 hours Dad and 3 hours boy
4. 60 minutes or 1 hour
5. 30 minutes