

Work Problems

You must show your work on a separate piece of paper.

1. Phil can paint the garage in 12 h, and Rick can do it in 10 h. They work together for 3h. How long will it take Rick to finish the job alone?
2. Stan can load his truck in 24 min. If his brother helps him, it takes them 15 min to load the truck. How long does it take Stan's brother alone?
3. Arthur can do a job in 30min, Bonnie can do it in 40 min, and Claire can do it in 60 min. How long will it take them if they work together?
4. It takes my father 3 h to plow our cornfield with his new tractor. Using the old tractor it takes me 5 h. If we both plow for 1 h before I go to school, how long will it take him to finish the plowing?
5. One pump can fill a water tank in 3 h, and another pump takes 5 h. When the tank was empty, both pumps were turned on for 30 min and then the faster pump was turned off. How much longer did the slower pump have to run before the tank was filled?
6. If w varies inversely as the square of x and jointly as y and z , what effect does it have on w when x is doubled, y is tripled and z is quadrupled?

Answers:

1. 4.5 h
2. 40min
3. $13 \frac{1}{3}$ min.
4. $1 \frac{2}{5}$ h
5. $3 \frac{2}{3}$ h
6. w is tripled