Rate-of-Work Problems

Jefferson Davis Learning Center, Sandra Peterson

Solve each rate-of-work problem.

1. A large engine can consume the fuel supply in 60 seconds, while the back-up engine can consume the same amount of fuel in 80 seconds. How long can both engines run together before they run out of gas?

2. At a reservoir, one spillway can empty all of the water in 5 days and a second spillway can empty it in 7 days. How long will it take to empty the reservoir if both spillways are used simultaneously?

3. Working alone, Mr. Green can paint a house in 3 days, while Mr. Brown can paint the same house in 5 days. How long will it take the two men to paint the house if they work together?

4. A tank can either be filled in 12 hours by Pipe A, or in 8 hours by Pipe B. How long will it take both pipes working together to fill the tank?

5. An older machine can finish a job in 10 hours. A newer machine can finish the same job in just 4 hours. How long will it take to finish the job if both machines are working together?

6. Machine A completes a job in 16 minutes, while Machine B can complete the same job in half that time. How long will it take to complete the job if both machines are working at the same time?

Answers

1. $34\frac{2}{7}$ seconds
2. $2\frac{11}{12}$ days
3. $1\frac{7}{8}$ days
4. $4\frac{4}{5}$ hours
5. $2\frac{6}{7}$ hours
6. $5\frac{1}{3}$ minutes

Please visit the Learning Lab for further assistance.