

Module 09-Lesson 8

Power

Question 1: You own two different boats. The engine of one of the boats generates twice as much power as the other. Is the stronger engine doing twice the work to take you from one end of the lake to the other? Explain.

Question 2: A runner completes a 100-m race in 10.5 s, doing 23.5 kJ of work. What is her average power output?

Problem: An elevator with a mass of 900 kg carries a load of 600 kg, as a friction force of 3000 N in magnitude slows down the upward motion of the elevator. Find the minimum power necessary to lift the elevator at a speed of 3.00 m/s.