

3. Which requires more work, lifting a 10-kg load a vertical distance of 2 m or lifting a 5-kg load a vertical distance of 4 m? (8.1)

6. What are the two main forms of mechanical energy? (8.3)

13. How does the amount of work done on an automobile by its engine relate to the energy content of the gasoline? (8.6)

21. Calculate the work done when a 20-N force pushes a cart 3.5 m.

26. If 8 million kg of water flows over Niagara Falls each second, calculate the power available at the bottom of the falls.

44. A certain car can go from 0 to 100 km/h in 10 s. If the engine delivered twice the power to the wheels, how many seconds would it take?