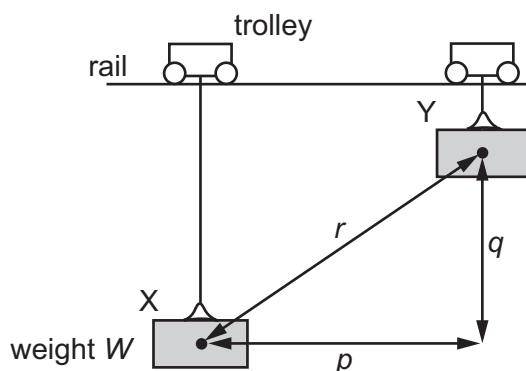


14 What is the average power output of a laser that can deliver 0.20 J of energy in 10 ns?

- A** 2 nW **B** 20 mW **C** 200 kW **D** 20 MW

15 A weight W hangs from a trolley that runs along a rail. The trolley moves horizontally through a distance p and simultaneously raises the weight through a height q .



As a result, the weight moves through a distance r from X to Y . It starts and finishes at rest.

How much work is done on the weight during this process?

- A** Wp **B** $W(p + q)$ **C** Wq **D** Wr

16 The engine of a car exerts a force of 600 N in moving the car 1.0 km in 150 seconds.

What is the average output power of the engine?

- A** 4.0 W **B** 4.0 kW **C** 90 kW **D** 90 MW

17 Which statement about boiling and evaporation is correct?

- A** Boiling can only occur at the surface of a liquid.
B Evaporation can only occur at a fixed temperature.
C Only boiling involves a change of phase.
D When some of a liquid evaporates, the rest of the liquid becomes cooler.

Space for working