35 A sinusoidally-alternating voltage supply at 50 Hz connected across a load resistor of 200 Ω delivers a peak current of 2.0 A. The frequency of the supply is doubled to 100 Hz.

What is the mean power dissipated in the load resistor at the higher frequency?

A 200 W **B** 400 W **C** 800 W **D** 1600 W