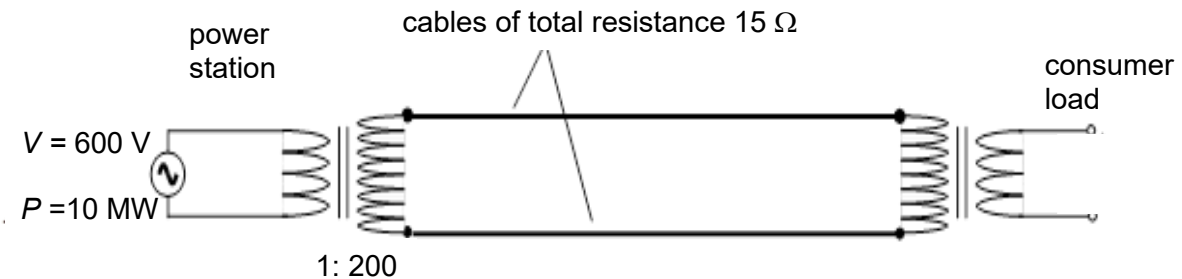
27 A 10 MW nuclear power station produces electrical power at 600 V. It uses an ideal step-up transformer with a turns ratio of 1: 200 to increase the voltage before transmitting it over long-distance cables of total resistance 15 Ω. At the consumer load, a second ideal transformer steps down the voltage.



What is the power lost as heat in the cables?

A 50 kW **B** 100 kW **C** 1.0 MW **D** 960 MW