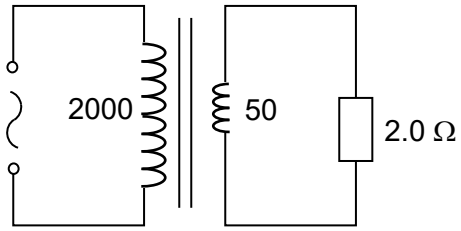
25 In the circuit shown, the **average** power dissipated across a 2.0 Ω resistor is 50 W. The turns ratio of the primary coil to secondary coil of the ideal transformer in the circuit is 2000 : 50.



What is the peak potential difference across the primary coil of the ideal transformer?

A 20 V **B** 40 V **C** 400 V **D** 564 V