

- 23** A solenoid is designed to produce a magnetic field of 0.0270 T at its center. It has diameter 2.80 cm and length 40.0 cm, and the wire carries a current of 12.0 A. What is the total length of wire required to make this solenoid?

A 63 m

B 130 m

C 160 m

D 310 m