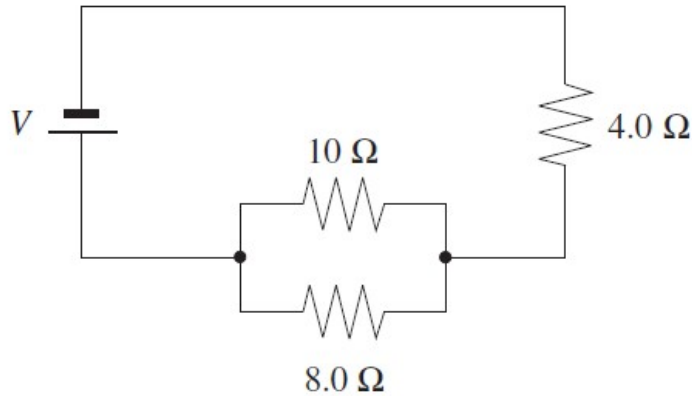


Physics 12 Daily Review Section 20.4

1.

A resistor is added in parallel to the $4.0\ \Omega$ resistor shown in the diagram below.



What happens to the power dissipated by the $8.0\ \Omega$ resistor and by the $4.0\ \Omega$ resistor?

	$P_{8.0\ \Omega}$	$P_{4.0\ \Omega}$
A.	decreases	increases
B.	decreases	decreases
C.	increases	increases
D.	increases	decreases

2.

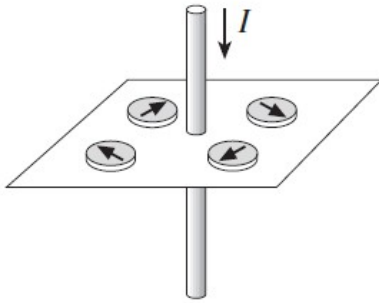
Protons and electrons travelling at high speeds enter a magnetic field **parallel** to their direction of travel. Which of the following is correct?

- A. Only protons are deflected.
- B. Only electrons are deflected.
- C. Both protons and electrons are deflected.
- D. Neither protons nor electrons are deflected.

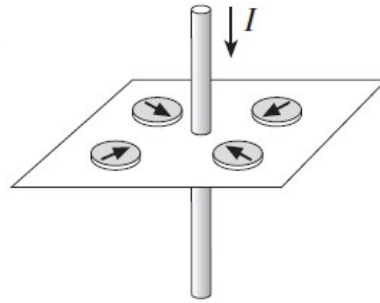
3.

Which of the following diagrams best shows the orientation for a set of four compasses placed around a current-carrying wire?

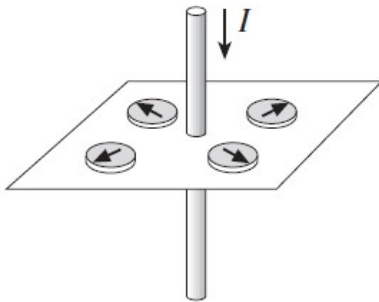
A.



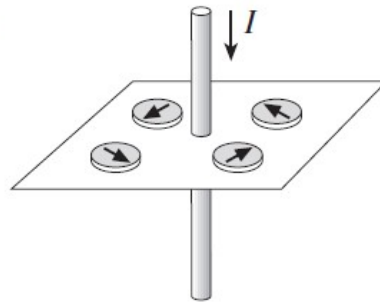
B.



C.



D.



4.

An electron travels at a speed of 1.4×10^4 m/s while following a circular path of radius 0.020 m perpendicular to a magnetic field. What is the strength of the magnetic field?

- A. 0.0 T
- B. 4.0×10^{-6} T
- C. 6.3×10^{-3} T
- D. 4.1×10^{-2} T