P. #60

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$q = 1.6 \times 10^{-19}\ C$ (proton charge)
$m = 1.67 \times 10^{-27}\ kg$
$r = 1.00\ km = 1000\ m$

$p = m \cdot v = 4.80 \times 10^{-16}\ kg \cdot m/s$

$$F_B = F_c$$

$$q \cdot v \cdot B = \frac{m \cdot v^2}{r}$$

$$q \cdot B = \frac{m \cdot v}{r}$$

$$(1.6 \times 10^{-19}\ C) \cdot B = \frac{(4.80 \times 10^{-16}\ kg \cdot m/s)}{1000\ m}$$

$$\boxed{B = 3.0\ T}$$