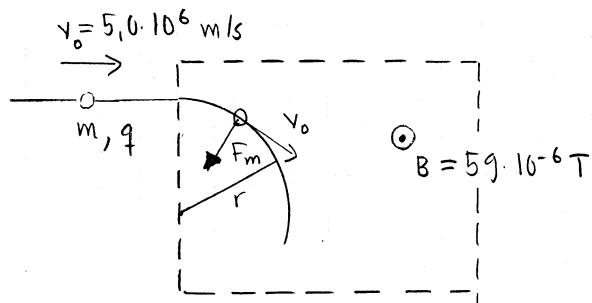


B2002-7



$$m = 9,11 \cdot 10^{-31} \text{ kg}$$

$$q = 1,602 \cdot 10^{-19} \text{ C}$$

Resultantens storlek

$$R = qvB$$

Newton II på elektronen ( $R = ma$ , med  $a = \frac{v^2}{r}$ )

$$qvB = \frac{mv^2}{r} \Rightarrow r = \frac{mv^2}{qvB} = \frac{mv}{qB} = \frac{9,11 \cdot 10^{-31} \cdot 5,0 \cdot 10^6}{1,602 \cdot 10^{-19} \cdot 59 \cdot 10^{-6}} \text{ m} = 0,48 \text{ m}$$

Svar: 0,48 m