

CONCEPT: MAGNETIC FIELD PRODUCED BY MOVING CHARGES

- Remember: A charge moving through an existing Magnetic Field FEELS a Magnetic FORCE.

• ALSO: A moving charge _____ (much less popular question):

- MAGNITUDE → _____

- Remember $\mu_0 = 4\pi \cdot 10^{-7} \text{ N/A}^2 = 1.26 \cdot 10^{-6} \text{ N/A}^2$

- Angle Θ is between _____ and _____, which is a vector between charge and location of produced field

- DIRECTION comes from RIGHT HAND RULE, by “grabbing” the LINE OF MOTION.

EXAMPLE: A 3 C charge is moving right with a constant 4 m/s. What is the magnitude and the direction of the magnetic field that this charge produces 2 cm directly above itself?