

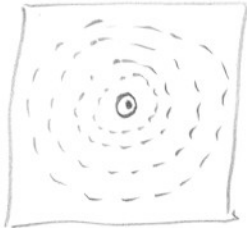
Electromagnetism Worksheet

$$\textcircled{1} F_B = BIL \sin \theta$$

$$6.0 \times 10^{-5} \text{ N} = B (1.5 \text{ A})(1 \text{ m})$$

$$B = 4.0 \times 10^{-5} \text{ T North}$$

②



viewed from
the top.

③ The magnetic field is coming out of the page.

$$\textcircled{4} F = BIL \sin \theta$$

$$2 \text{ N} = B (10 \text{ A})(1 \text{ m})$$

$$B = 0.2 \text{ T}$$

$$\textcircled{5} F = BIL \sin \theta$$

$$(0.2 \text{ N}) = (4 \times 10^{-5} \text{ T}) I (250 \text{ m})$$

$$I = 20 \text{ A West}$$

⑥ Into the page

⑦ North

⑧ The bar magnet will be repelled.