

From PP (FOP Sheet)

3. $\theta = 90^\circ$

$l = 1.0 \text{ m}$

$F = 6.0 \times 10^{-5} \text{ N}$

$I = 1.5 \text{ A}$

$B = ?$

$$F = BIl \sin \theta$$

$$B = \frac{F}{Il \sin \theta}$$

$$B = \frac{6.0 \times 10^{-5} \text{ N}}{(1.5 \text{ A})(1.0 \text{ m}) \sin 90^\circ}$$

$$B = 4.0 \times 10^{-5} \frac{\text{N}}{\text{A} \cdot \text{m}} \leftarrow T$$