**Noteguide for Force on Current-Carrying Wires - Videos 20B Name**

Example: A 0.15 T magnetic field is 27o east of North What’s the force on a 3.2 m long wire if the current is 5.0 A to the West?



Whiteboards

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| 1. What current in what direction would you need to have a force of 10.0 N to the west in 50.0 cm of wire perpendicular to Earth’s magnetic field of 0.5 x 10-4 T to the North?(4 x 105 A upward) | 2. A 17 cm wire forms a 37o angle with an unknown magnetic field. What is the magnetic field if the force equals 0.015 N and I = 5.0 A?(2.9 x 10-2 T) |
| 3. (8.5 A, ACW) | 4. (0.060 N, Up) |