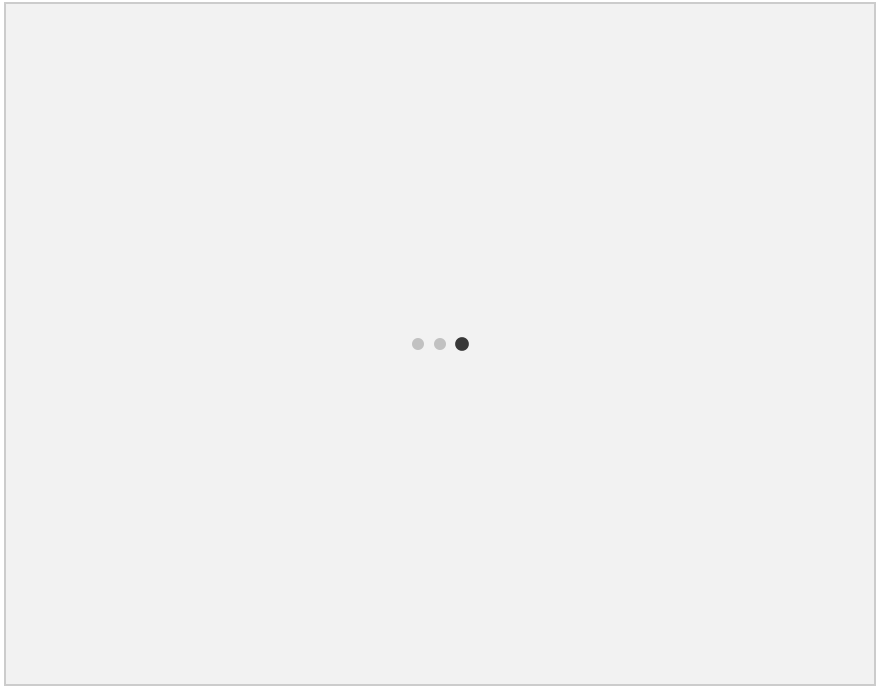
Physics 12

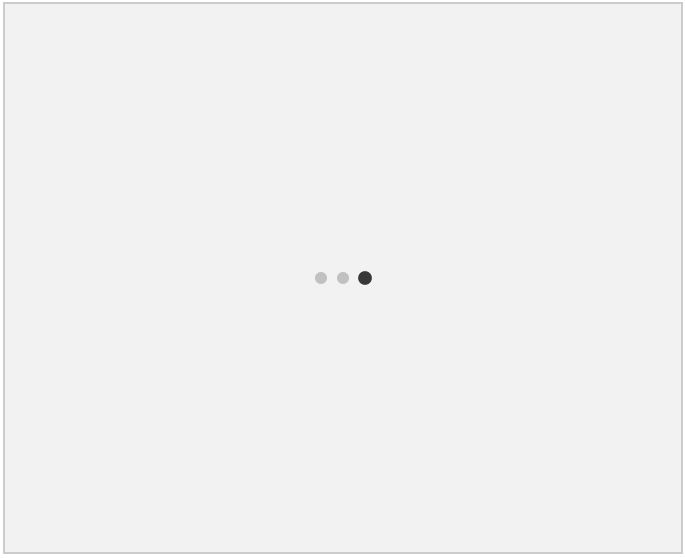
Section 20.2 and 20.3 Electric Current Produce Magnetism

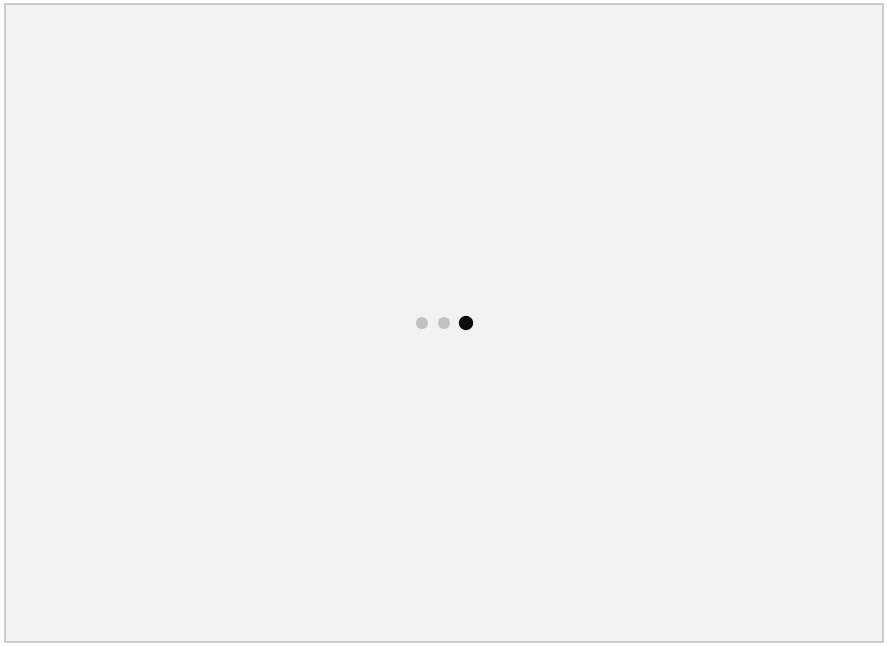
1. In 1820 Han Christian Oersted demonstrated the

2. The right hand rule allows us to predict the
or the
conventional current direction knowing the field direction.

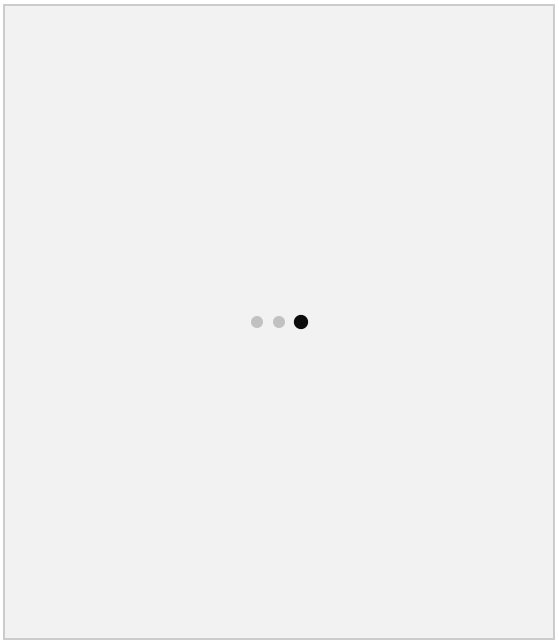


3. A second right hand rule allows you to determine the





4. The Magnitude of the Force can be found by , where B is the , I , l is the length of the wire (m) , and θ is the angle between the



Example: A wire carrying a 30A current has a length of 12cm between the pole faces of a magnet at an angle of 60°. The magnetic field is 0.90T. What is the force on the wire?