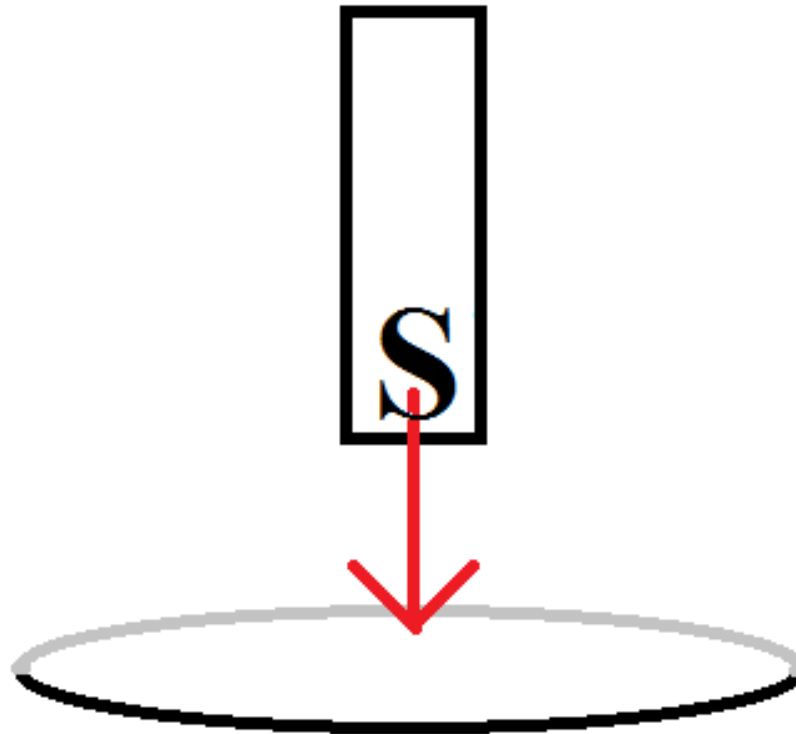


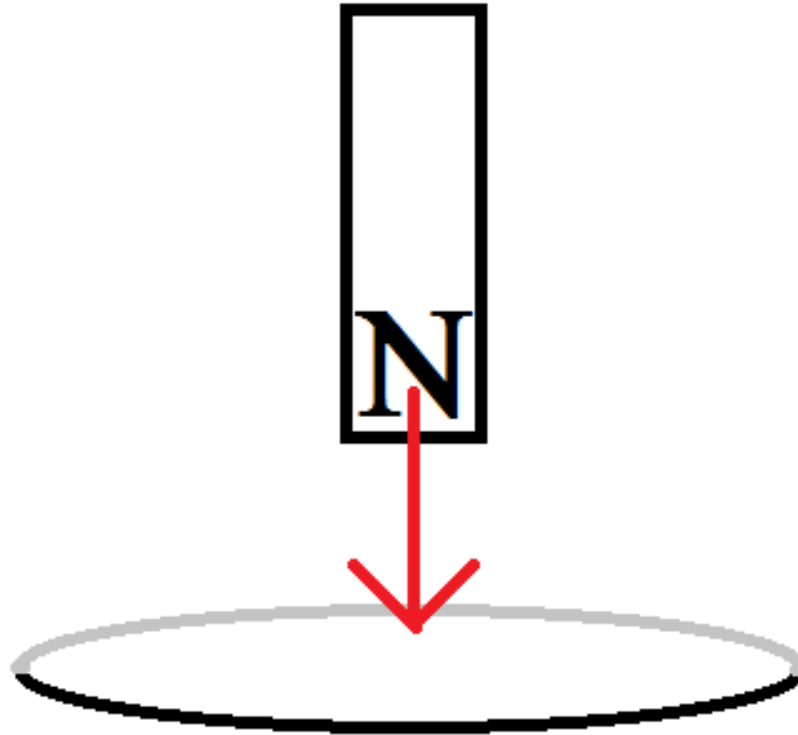
# Lenz' Law

Contest



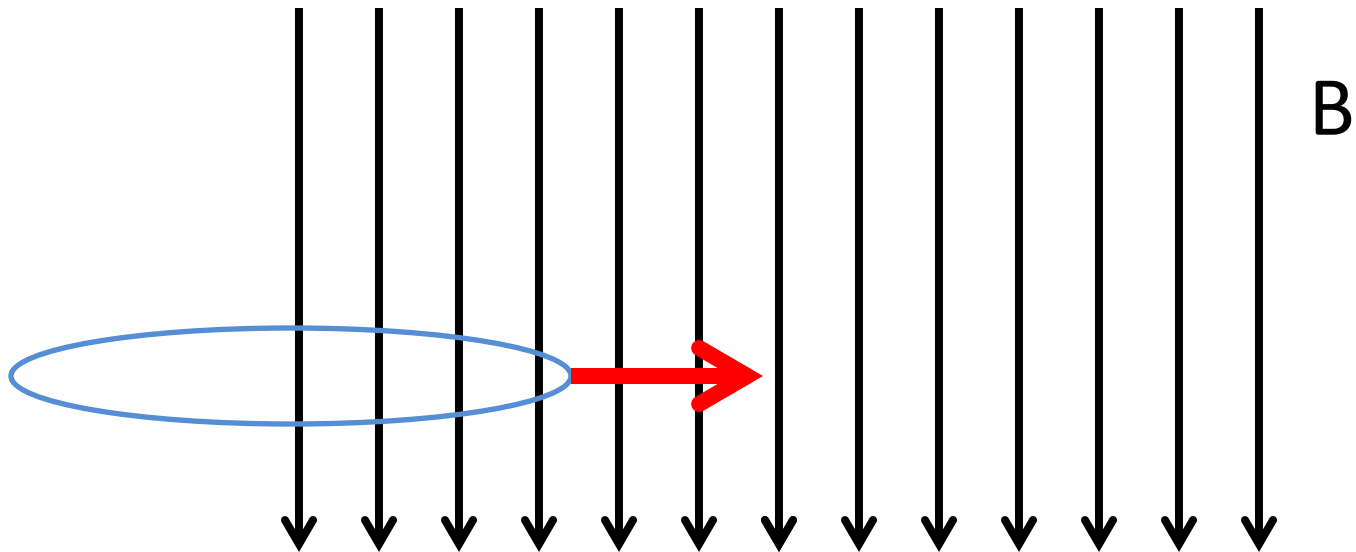
**South end of a magnet moving towards loop**

Express direction as if you were looking down on loop  
from above.



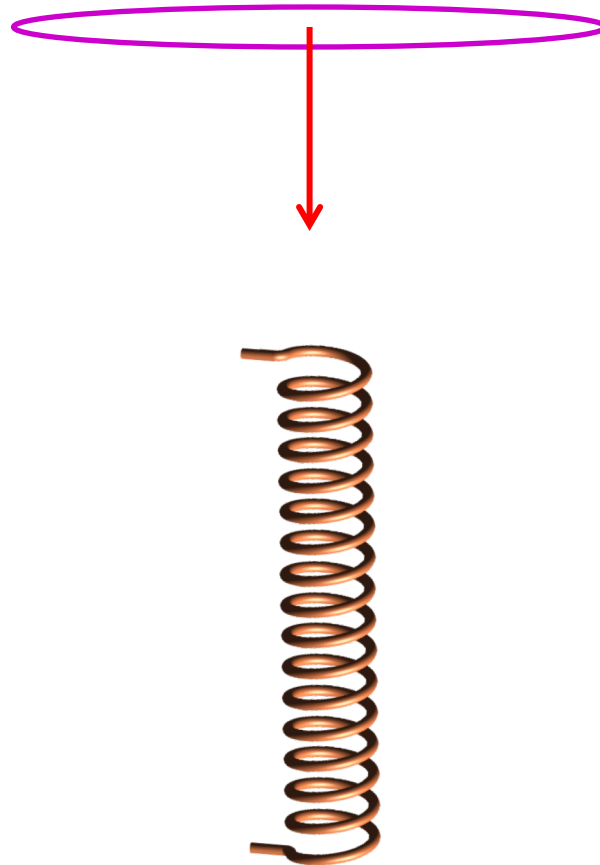
**North end of a magnet moving towards loop**

Express direction as if you were looking down on loop  
from above.



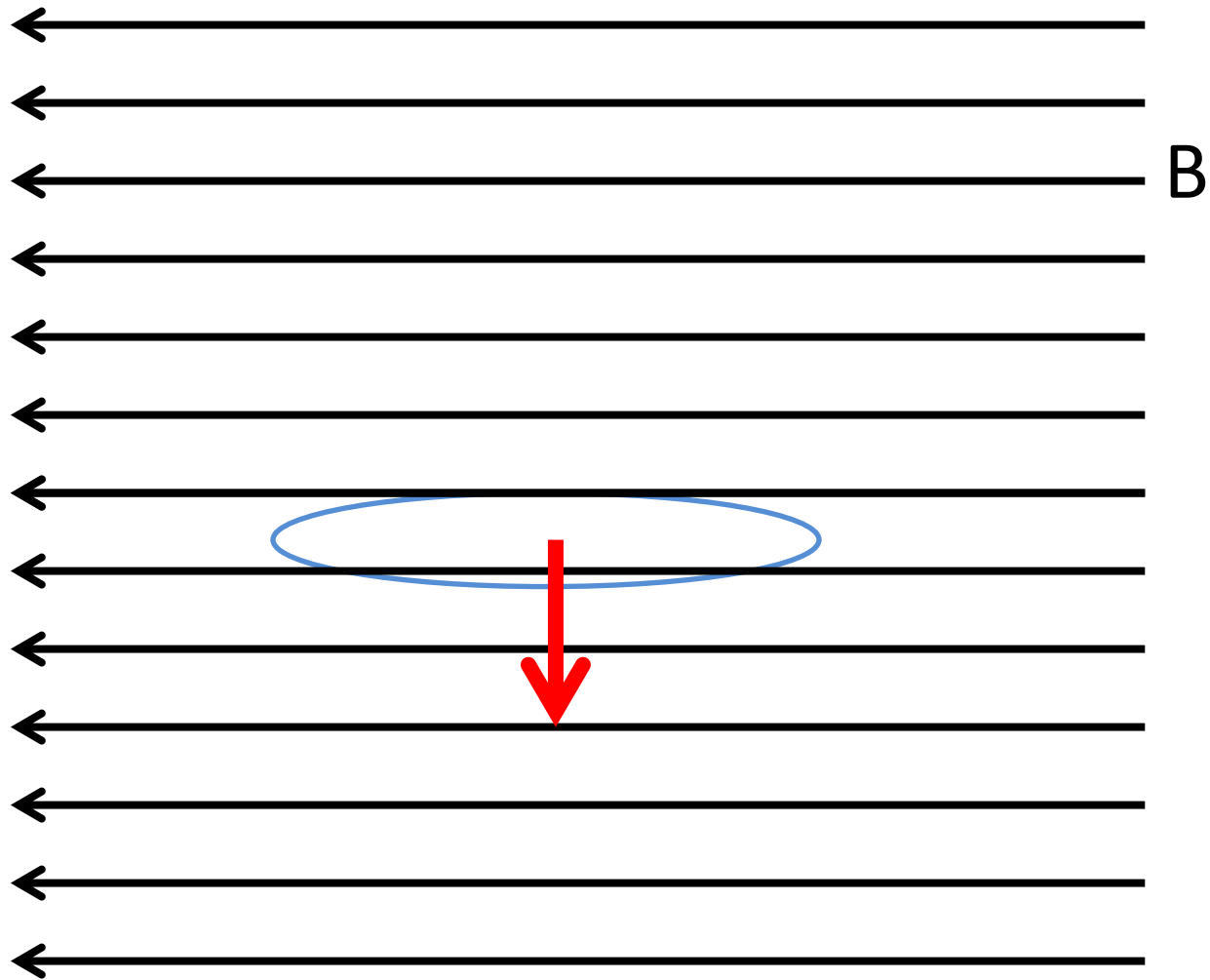
**Loop moving into a uniform magnetic field as shown.**

Express direction as if you were looking down on loop  
from above.



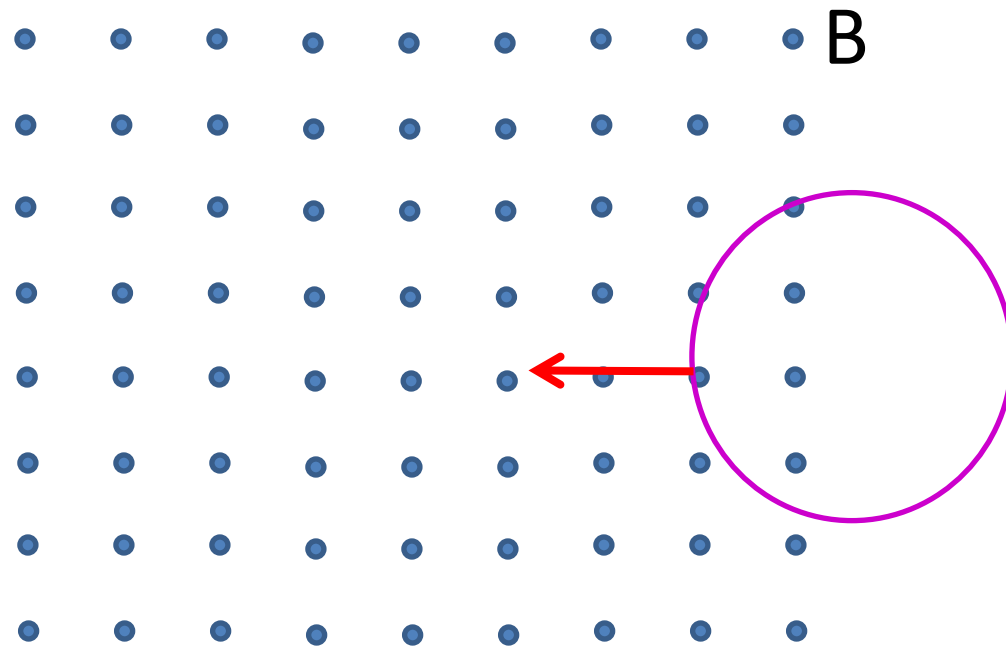
**Loop moving towards solenoid, where the solenoid's current enters through the bottom and exits through the top**

Express direction as if you were looking down on loop from above.

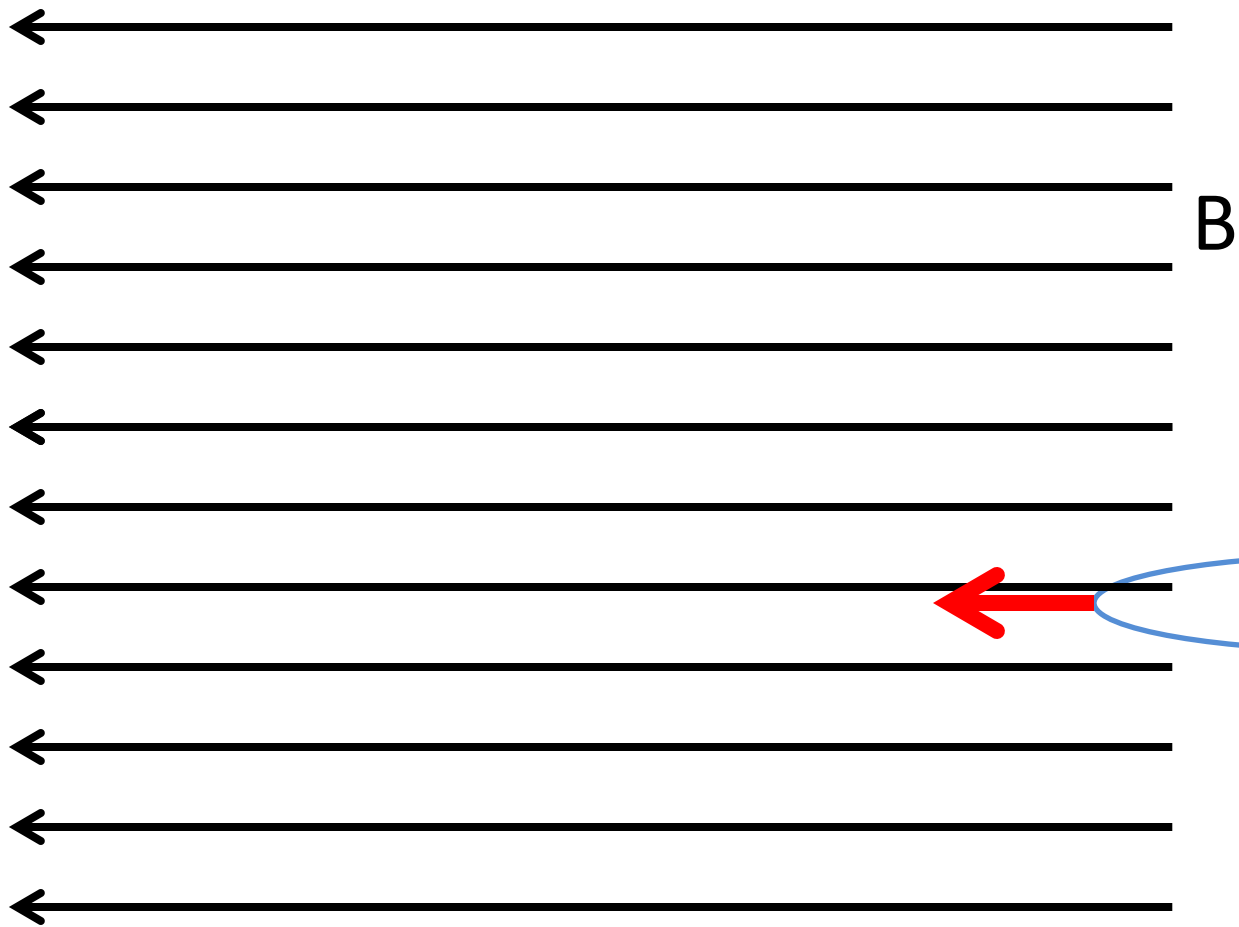


**Loop moving through a uniform magnetic field as shown.**

Express direction as if you were looking down on loop from above.

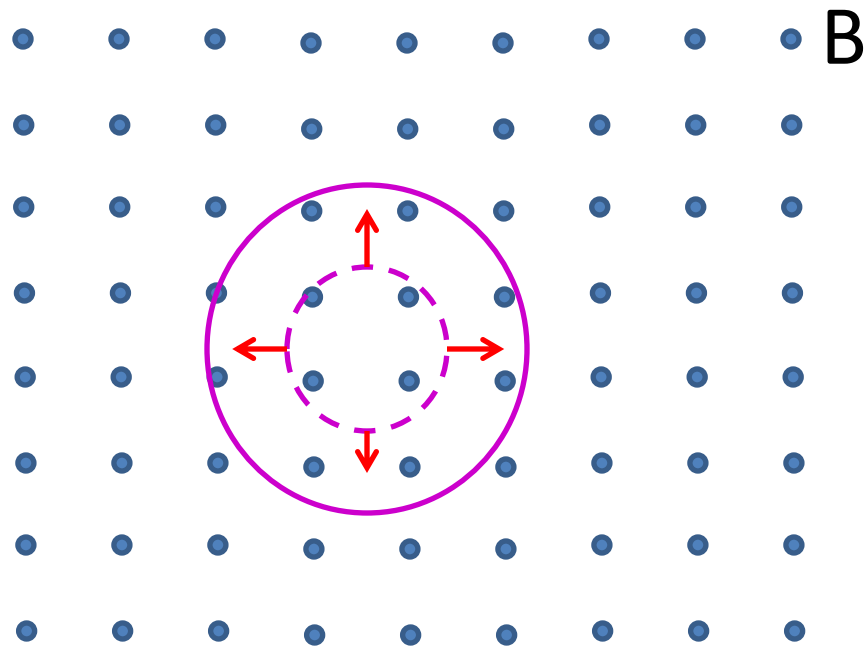


**Loop entering uniform magnetic field out of the page**

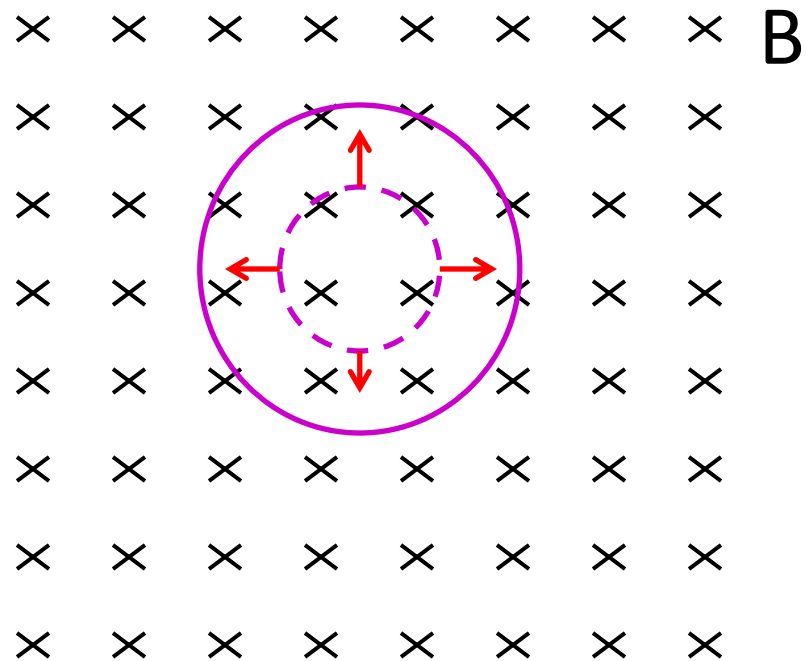


**Loop moving into a uniform magnetic field as shown.**

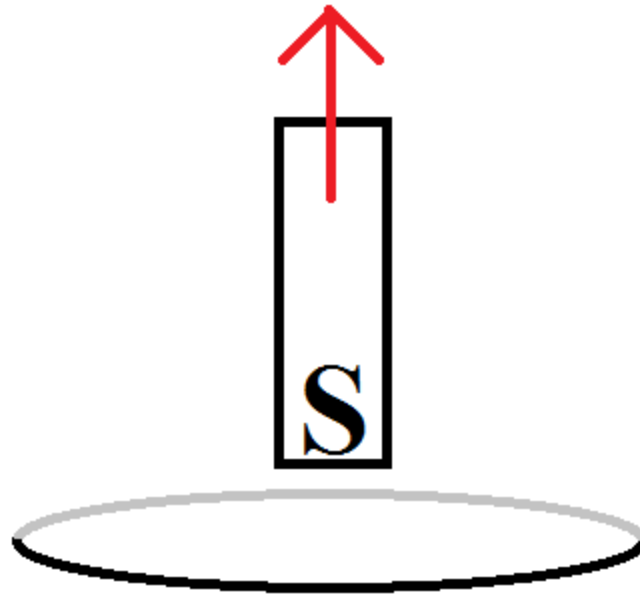
Express direction as if you were looking down on loop  
from above.



**Loop expanding in uniform magnetic field out of the page**

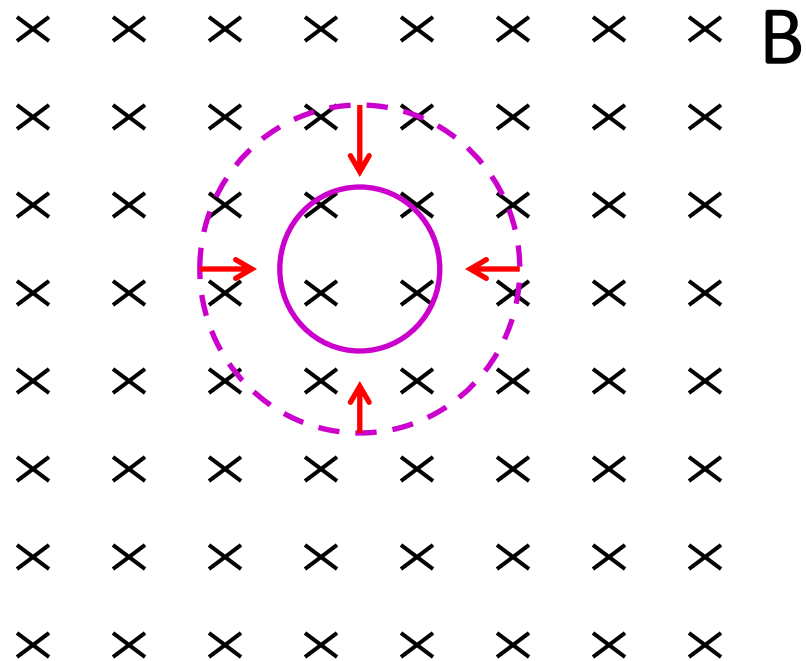


**Loop expanding in uniform magnetic field into the page**

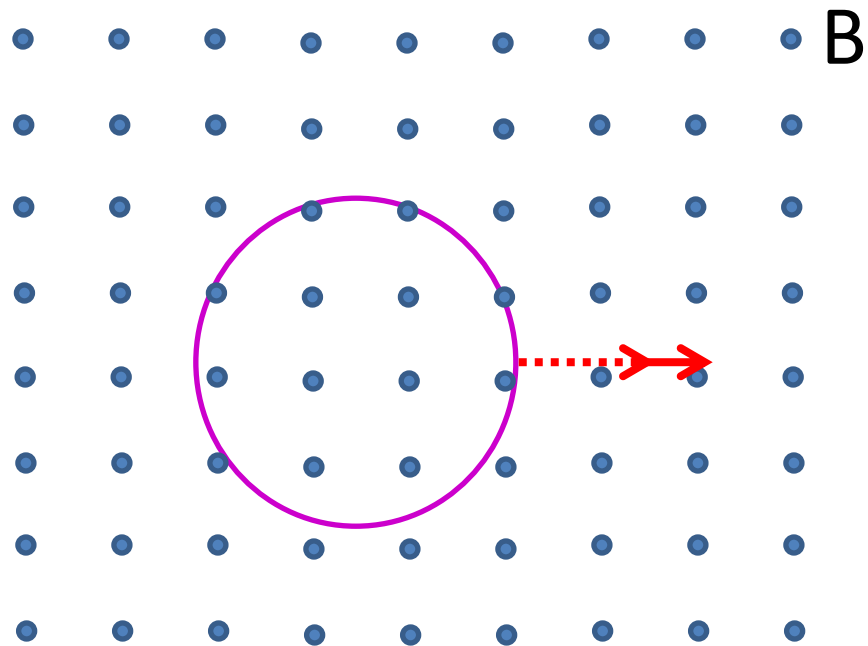


**South end of a magnet moving away from loop**

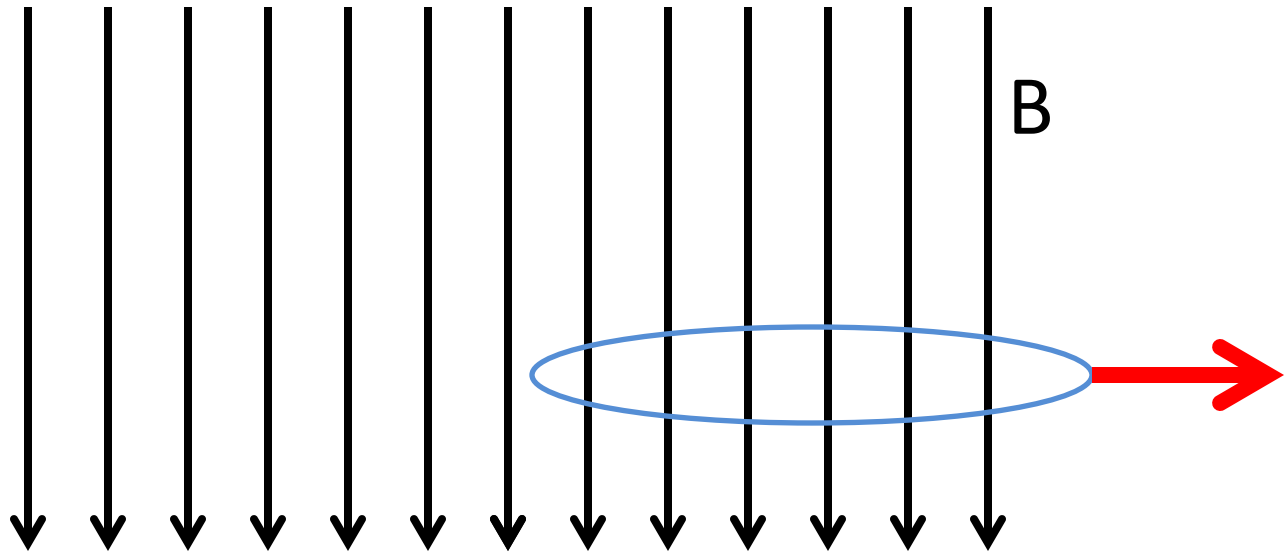
Express direction as if you were looking down on loop  
from above.



**Loop shrinking in uniform magnetic field into the page**

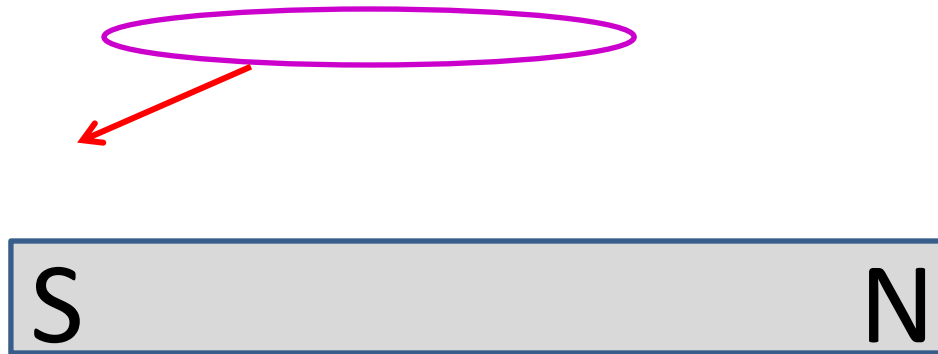


**Loop speeding up through uniform magnetic field out of the page**

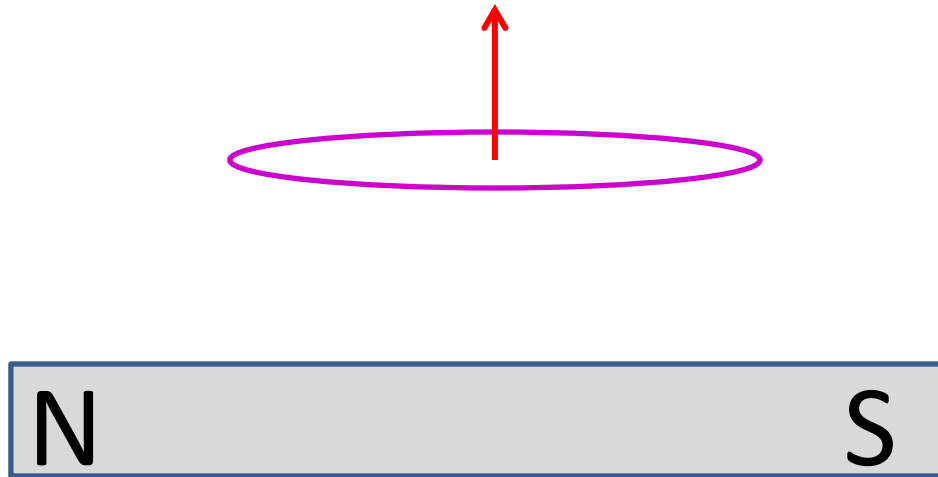


**Horizontal loop moving out of a uniform magnetic field as shown.**

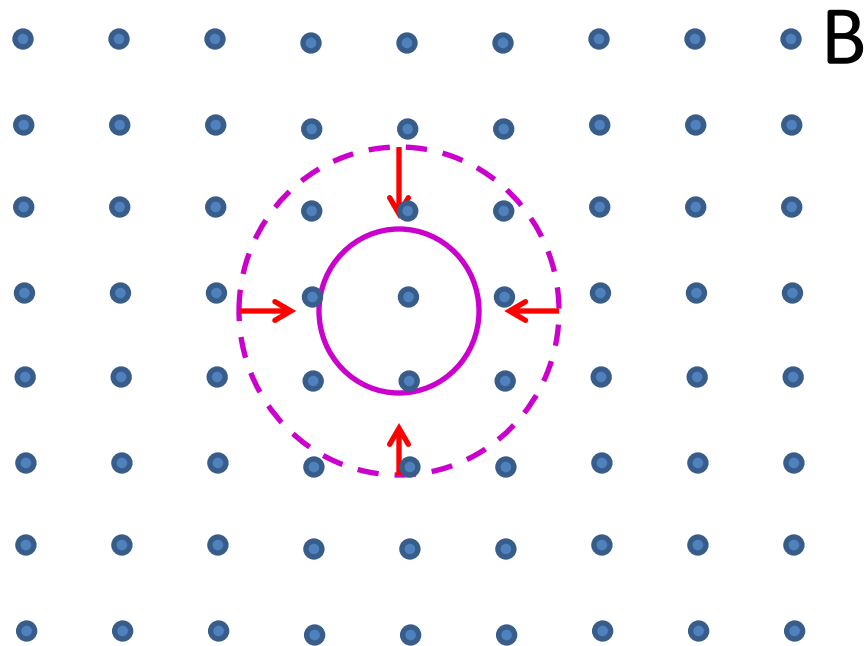
Express direction as if you were looking down on loop from above.



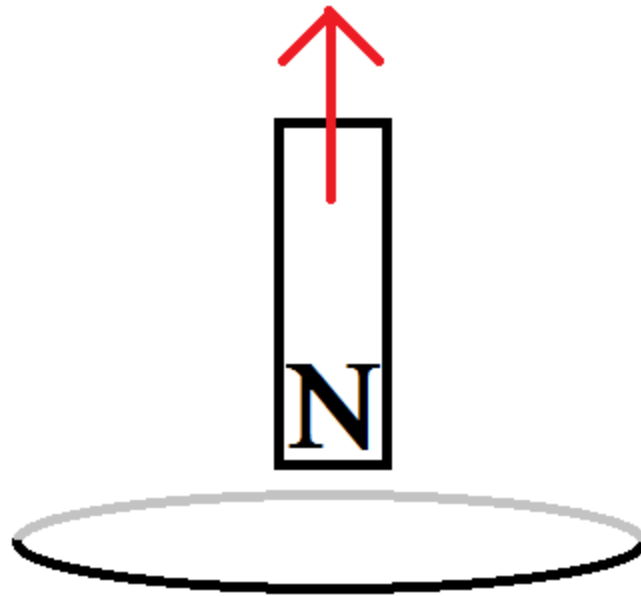
**Loop oriented in horizontal plane is moving down and to the left as shown**



**Loop oriented in horizontal plane is moving vertically as shown**

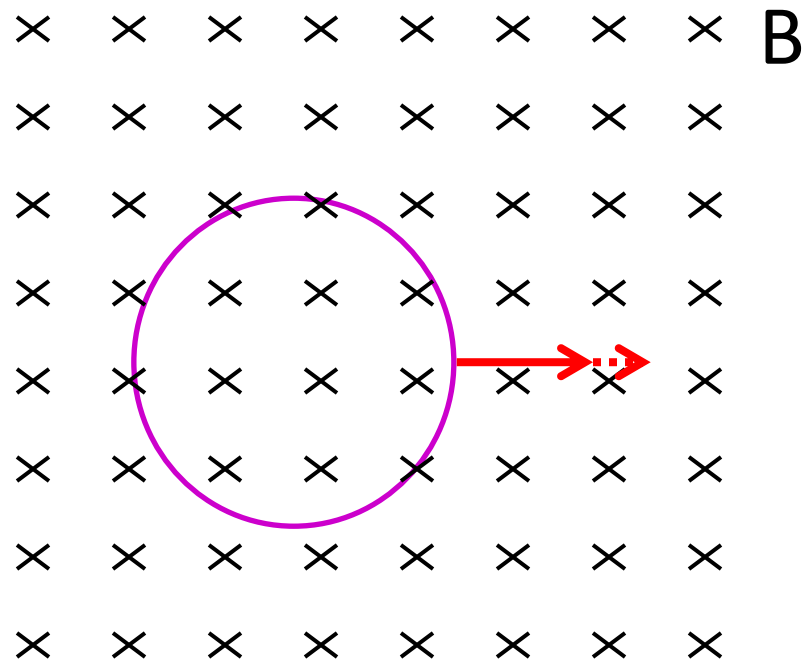


**Loop shrinking in uniform magnetic field out of the page**

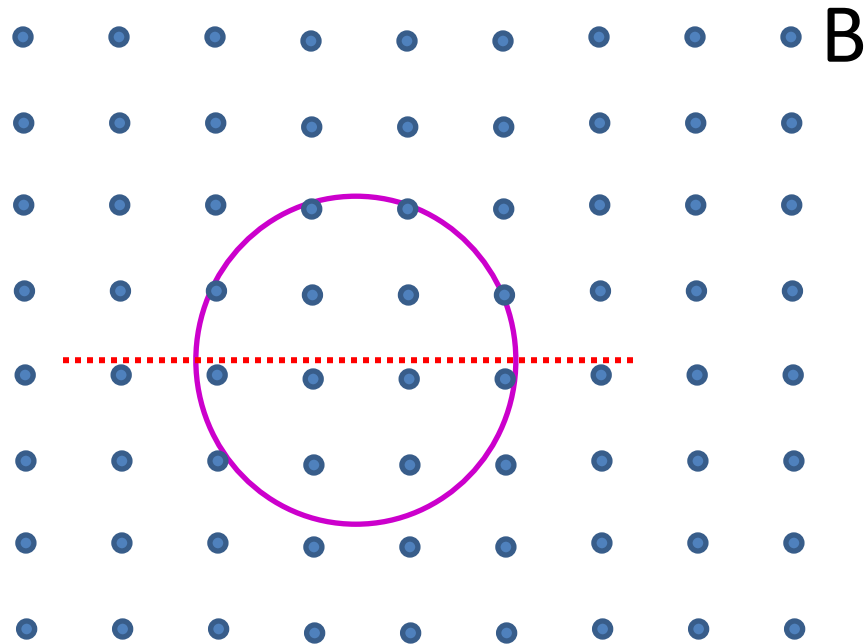


**North end of a magnet moving away from loop**

Express direction as if you were looking down on loop  
from above.

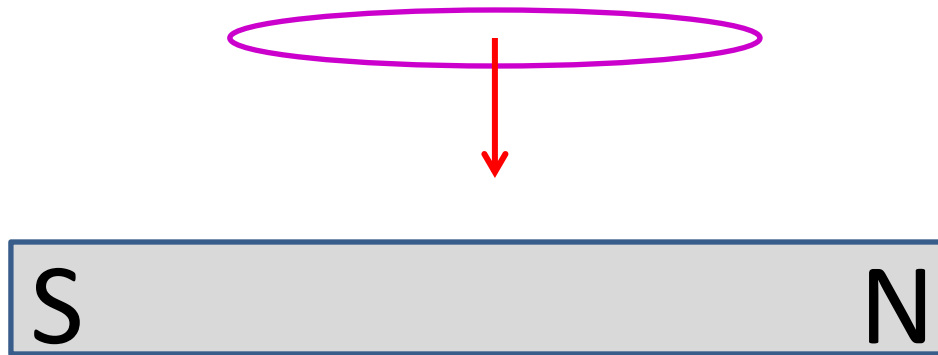


**Loop slowing down through uniform magnetic field into the page**

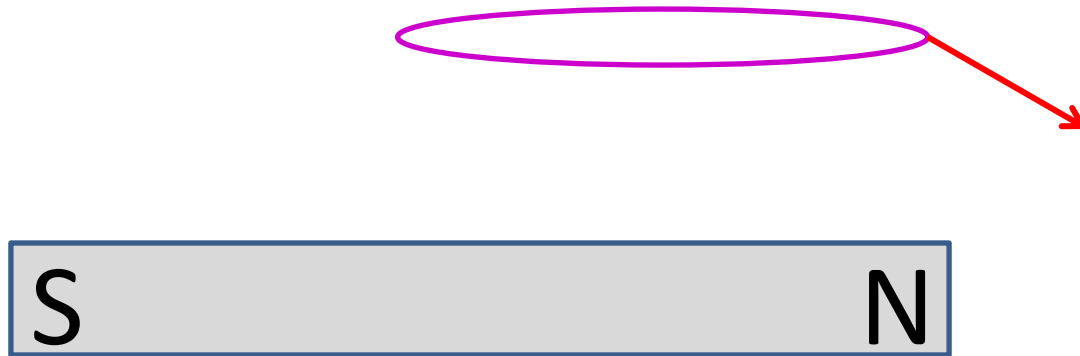


**Loop rotating about the dotted line shown, where rotation vector points to the left.**

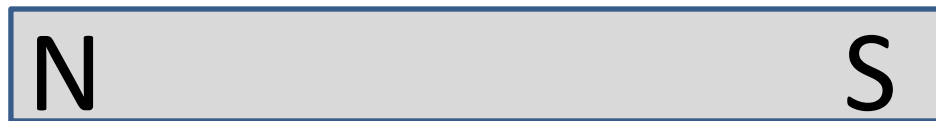
Consider a time interval from when the loop is horizontal to when it is vertical (vertical position is shown in diagram).



**Loop oriented in horizontal plane is moving vertically as shown**

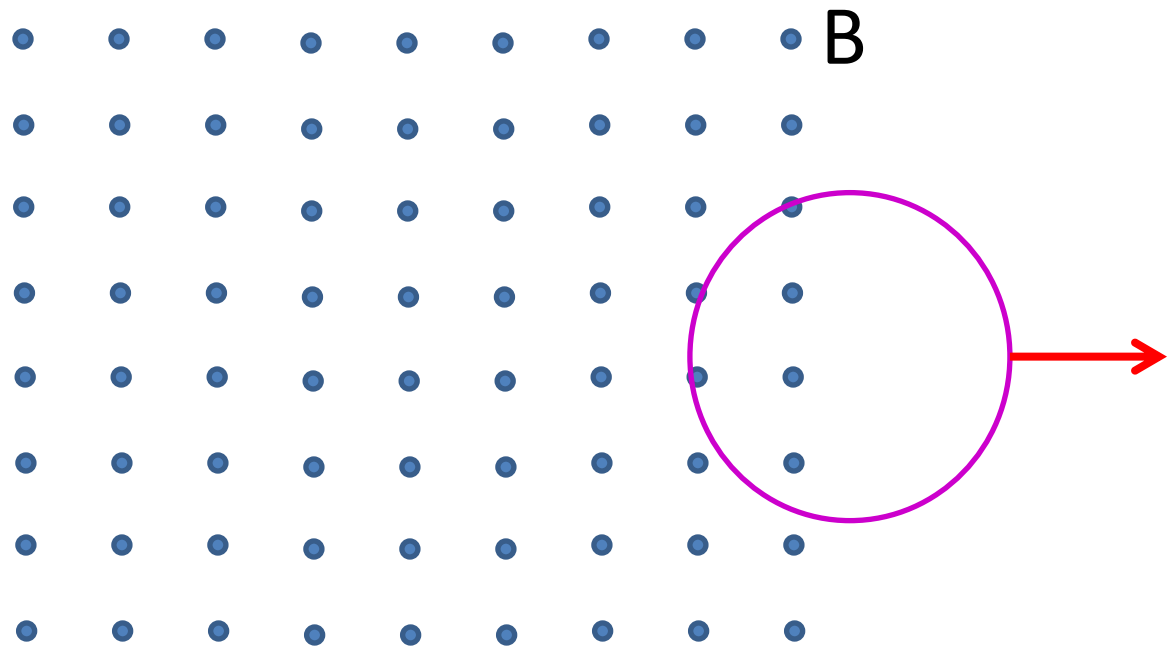


**Loop oriented in horizontal plane is moving down and to the right as shown**

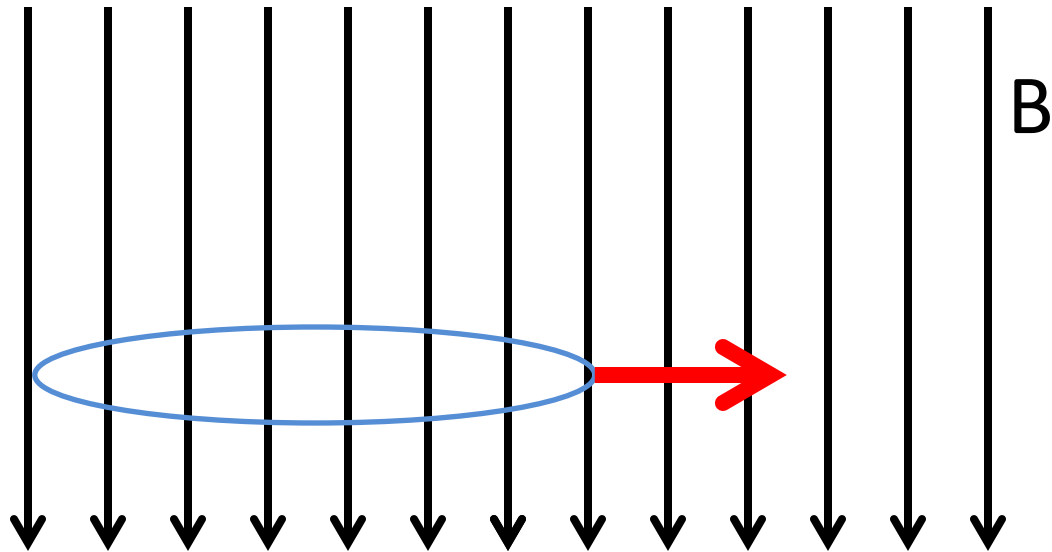


**Loop oriented in the plane perpendicular to the page is  
moving vertically as shown**

Express direction as if you were looking at loop from the right  
side of the page (see face drawn above)

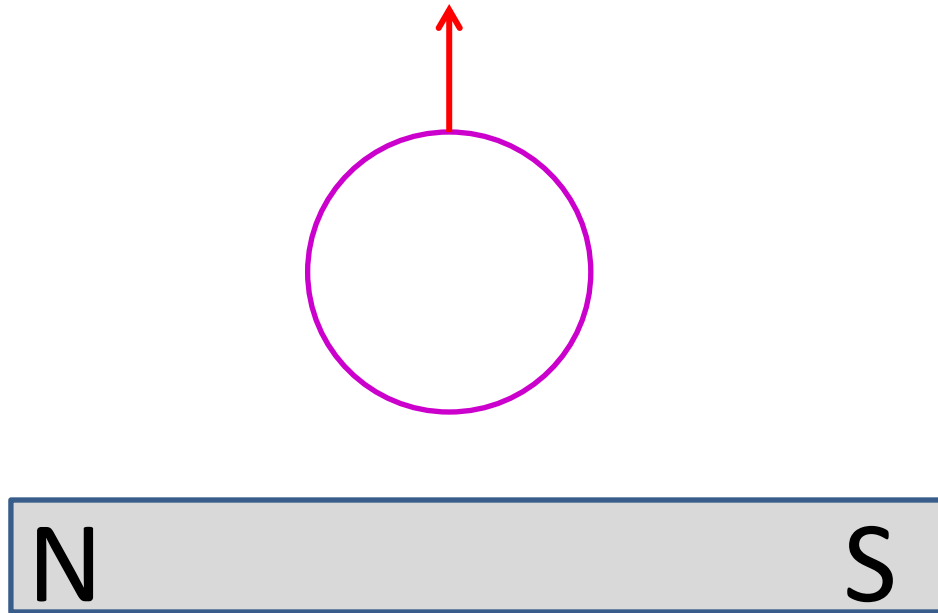


**Loop leaving uniform magnetic field out of the page**

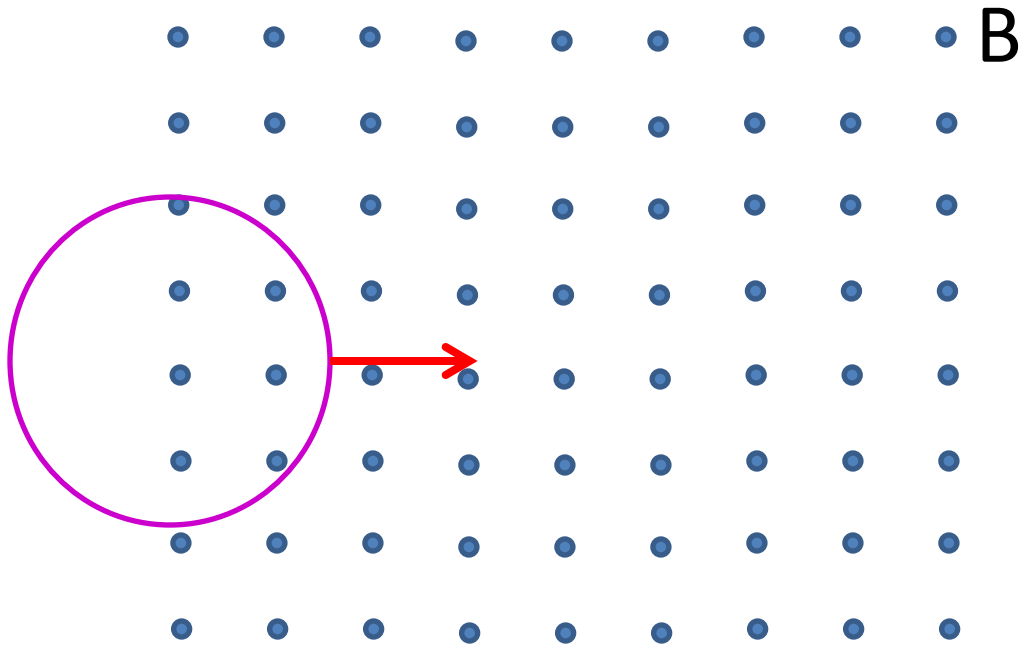


**Loop moving through a uniform magnetic field as shown.**

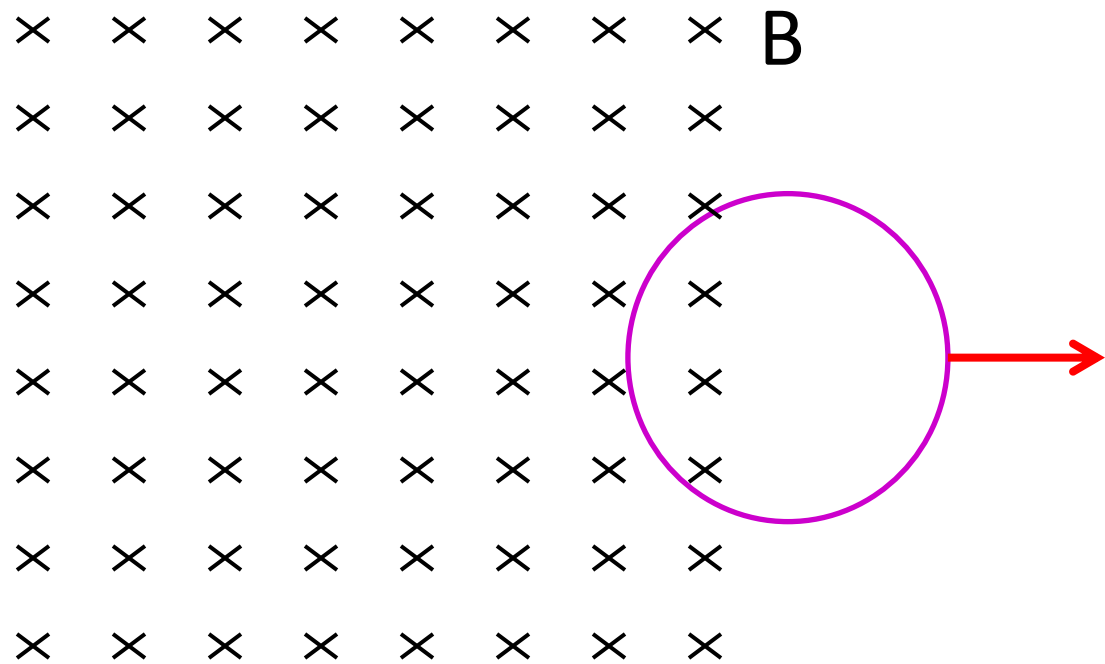
Express direction as if you were looking down on loop from above.



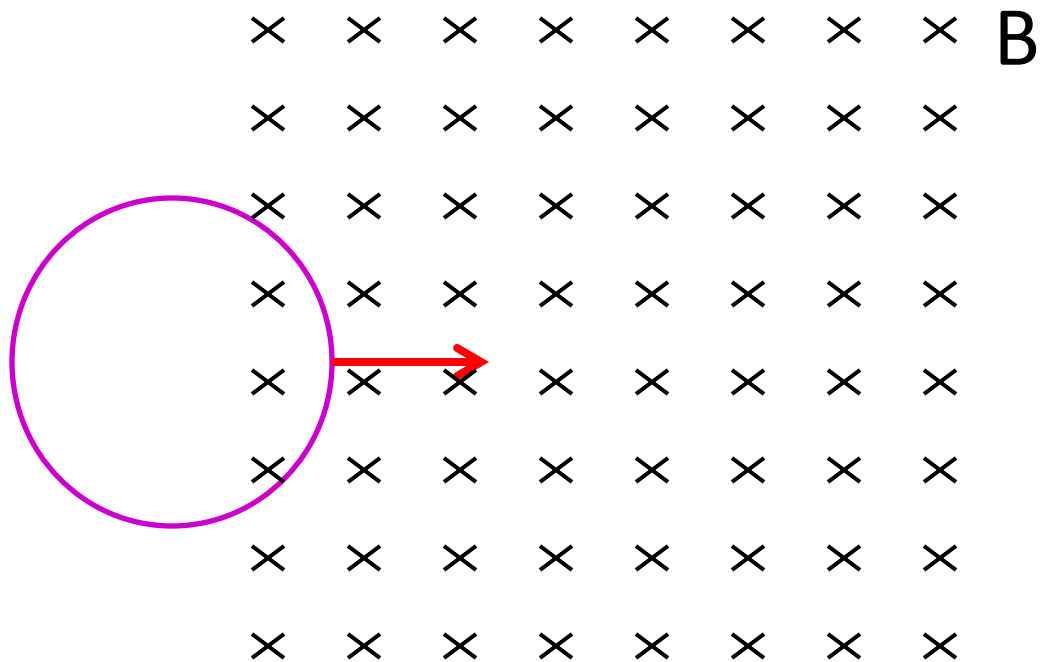
**Loop is moving vertically as shown**



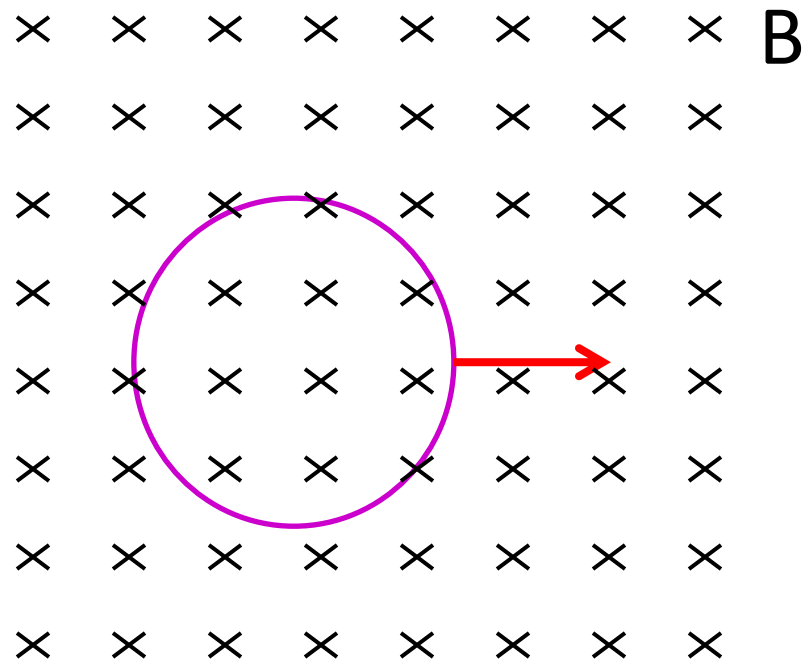
**Loop entering a uniform magnetic field out of the page**



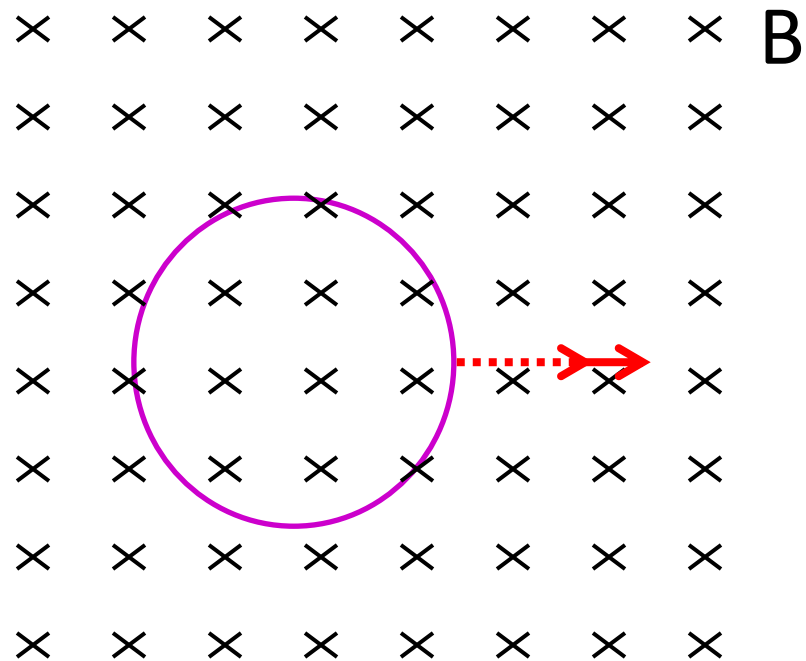
**Loop leaving uniform magnetic field into the page**



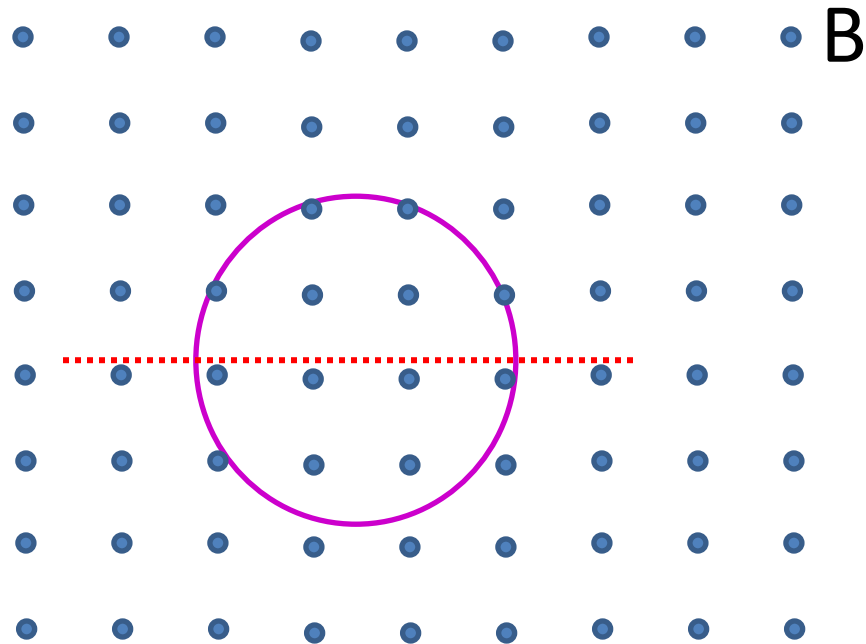
**Loop entering uniform magnetic field into the page**



**Loop moving through uniform magnetic field into the page**

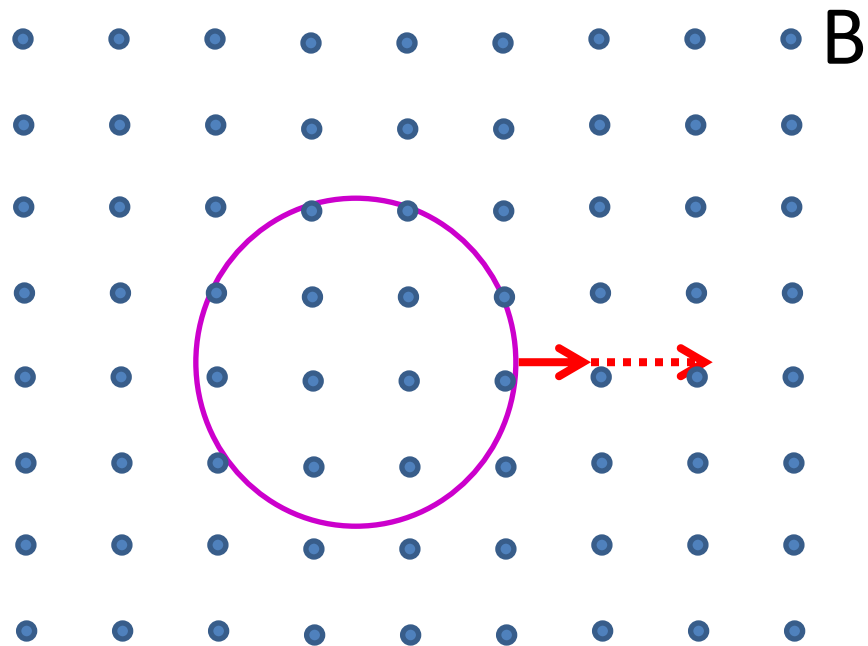


**Loop speeding up through uniform magnetic field into the page**



**Loop rotating about the dotted line shown, where rotation vector points to the left.**

Consider a time interval from when the loop is vertical as shown to when it is horizontal.

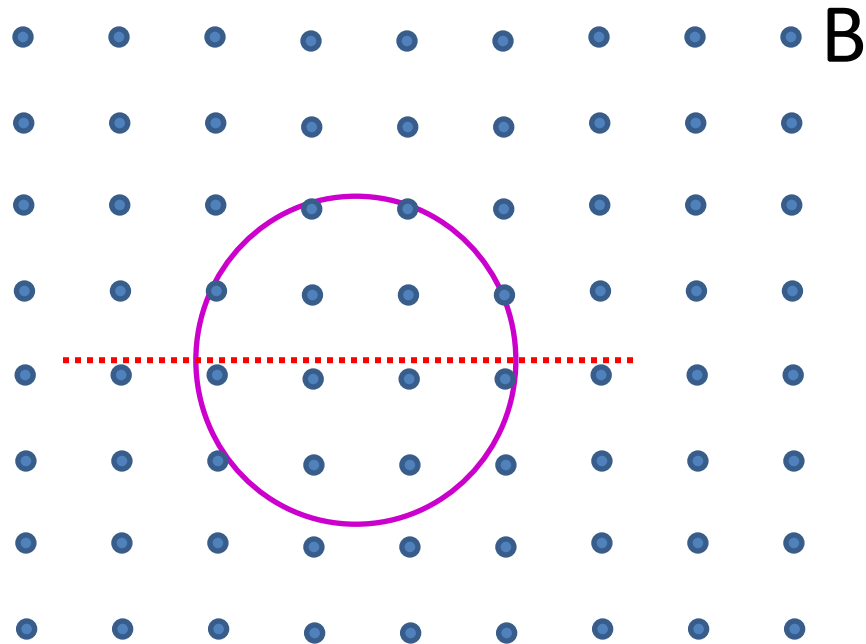


**Loop slowing down through uniform magnetic field out of the page**



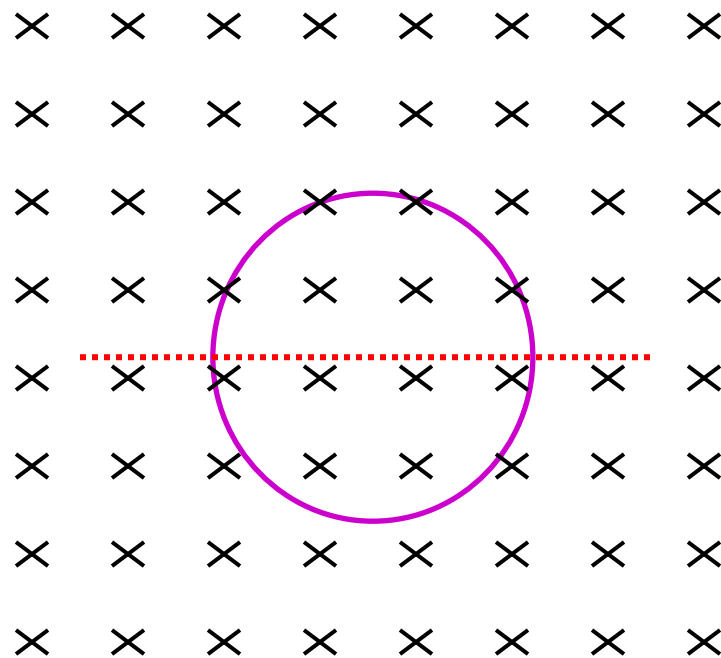
**Loop rotating about the dotted line shown, where rotation vector points to the left.**

Consider a time interval from when the loop is vertical as shown to when it is horizontal.



**Loop rotating about the dotted line shown, where rotation vector points to the right.**

Consider a time interval from when the loop is vertical as shown to when it is horizontal.



B

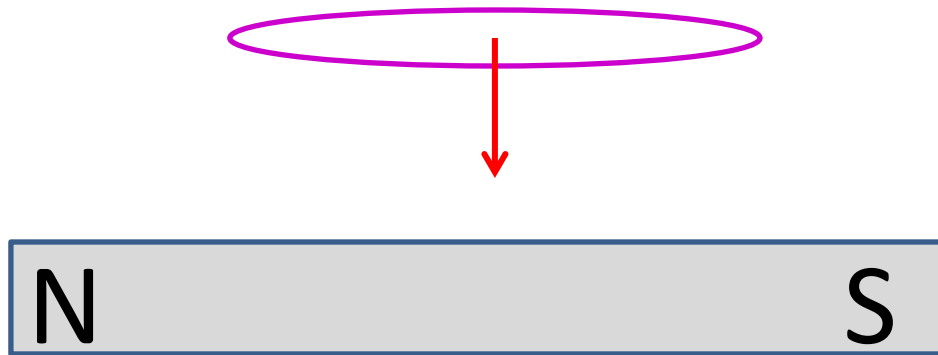
**Loop rotating about the dotted line shown, where rotation vector points to the left.**

Consider a time interval from when the loop is horizontal to when it is vertical as shown.

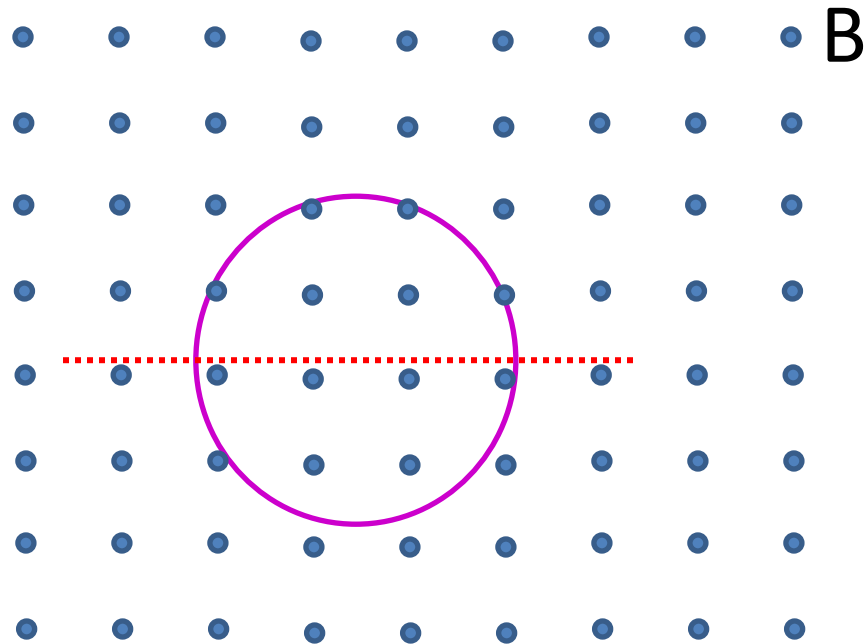


**Loop oriented in the plane perpendicular to the page is  
moving vertically as shown**

Express direction as if you were looking at loop from the right  
side of the page (see face drawn above)

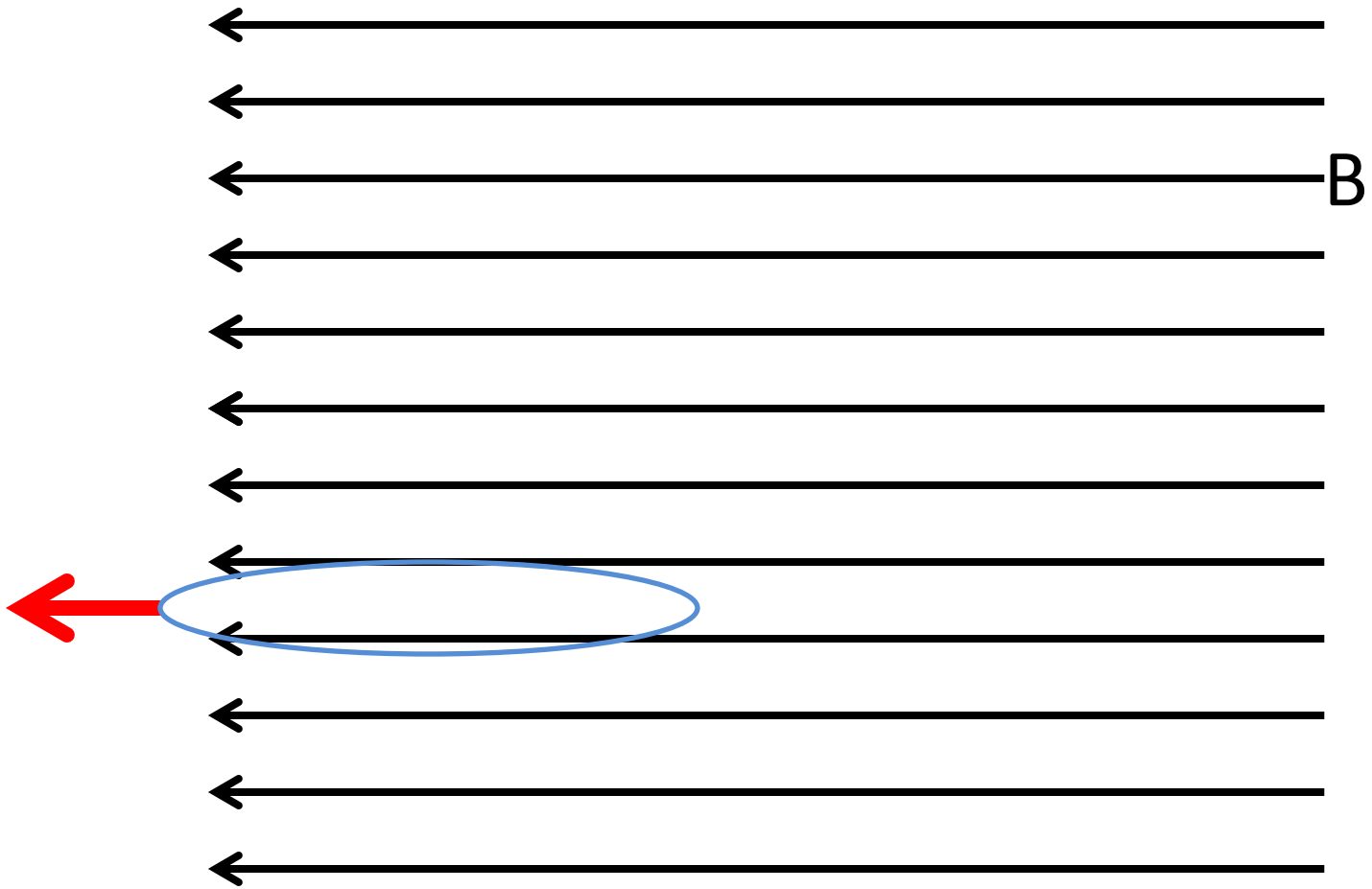


**Loop oriented in horizontal plane is moving vertically as shown**



**Loop rotating about the dotted line shown, where rotation vector points to the right.**

Consider a time interval from when the loop is horizontal to when it is vertical as shown.



**Horizontal loop moving out of a uniform magnetic field  
as shown.**

Express direction as if you were looking down on loop  
from above.