Motion of q in uniform B field
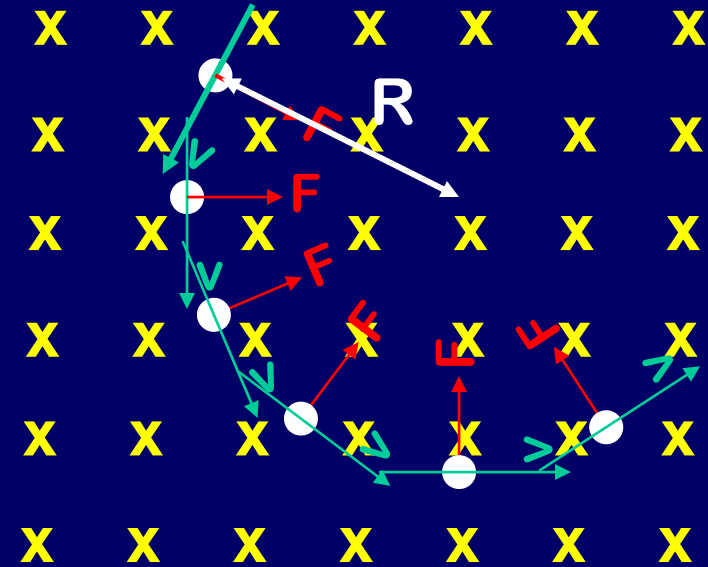
- Force is perpendicular to B,v
  - B does <u>no work</u>! (W=F d cos θ)
  - Speed is constant (W=ΔK.E.)
  - Motion is circular

- Solve for R:

  Recall circular motion from Phys 101

$$F = m\frac{v^2}{R} = qvB\sin\theta \quad \longrightarrow \quad R = \frac{mv}{qB}$$

Uniform B into page