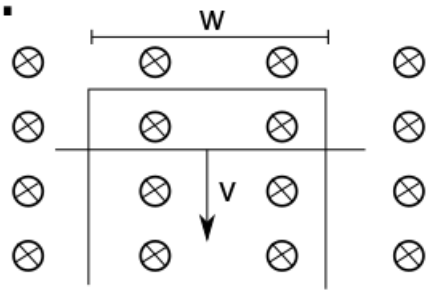
Coordination - Induced Current: Math, Graphs, and Concepts [8]

For each of the following cases:

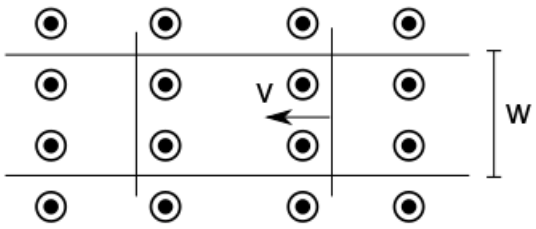
1. Determine the direction of the induced current
2. Calculate the induced voltage
3. Draw the flux vs time graph
4. Draw the induced voltage vs time graph

A.



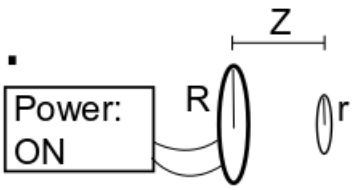
B = 1.2 T (into the page)
v = 0.5 m/s
w = 0.25 m

B.



B = 1.2 T (out of the page)
v = 0.5 m/s
w = 0.4 m

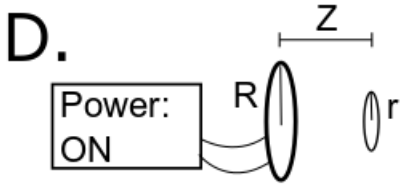
C.



$I_{power\ source} = .1 + 0.03*t$

R = 0.1 m
Z = 0.15 m r = 0.01 m

D.



$I_{power\ source} = 5 - 0.1*t$

R = 0.1 m
Z = 0.15 m r = 0.01 m

[8] Written by Daryl McPadden for Fab Physics