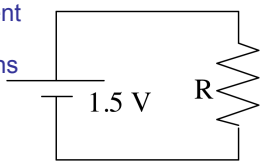
Which way does current flow through R?
Which way do electrons flow through R?



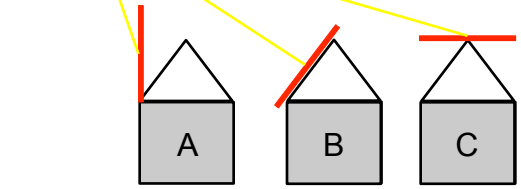
A: I is up through R, electrons go up
B: I is up through R, electrons go down
C: I is down thru R, electrons go up
D: I is down thru R, electrons go down

PhET - battery

Domains Before Magnetization

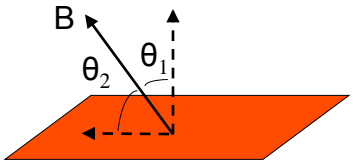
PhET - Faraday

Prof. Pollock has solar panels on the roof of his house. He wants to maximize the *flux* of sunlight through the panels.



Which design would you suggest?

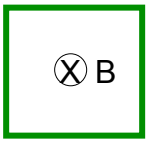
The formula for flux is $\Phi_B = B_\perp A = BA\cos\theta$.
But, WHICH of the two angles labeled θ is the one you need in the formula?



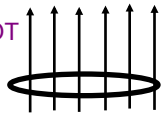
A: θ_1 B: θ_2 C: Either one!
D: Neither one seems right?

We have a square loop with side of length a. There is a uniform B-field in the region. How does the magnitude of Magnetic Flux, $|\Phi_B|$ change if we halve the B-field strength and double the sides of the square loop?

A: Down by 2 B: Down by 4
C: Same
D: Up by 2 E: Up by 4



A loop sits in a B-field (which points in the +z direction). The loop lies in the x-y plane. Which of the following would NOT change the magnitude of the flux through the loop?



A: Tilt the loop out of the x-y plane.
B: Rotate the loop around the z-axis
C: Increase the radius of the loop
D: Tilt the direction of the B-field.
E: More than one does NOT change flux

A loop of wire is moving rapidly through a uniform magnetic field as shown.
Is a non-zero EMF induced in the loop?

A: Yes, there is B: No, there is not