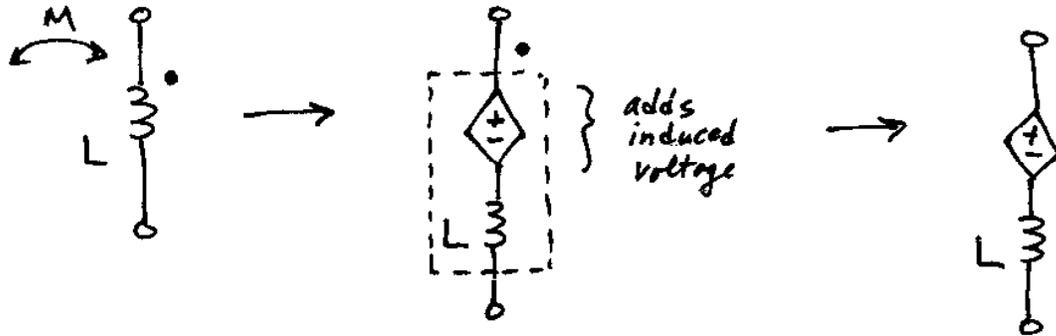


Circuit Model for Mutual Inductance

* General Approach:



* Be sure to orient the dependent source so that the positive terminal is the same as the dotted terminal.

* Voltage Source Value:

- Time domain:

$$M \frac{di_{eod}}{dt}$$

where i_{eod} = the current that enters the other dotted terminal (include negative sign if the other current enters the undotted terminal).

- Phasor domain:

$$(j\omega M) I_{eod}$$

- s-domain (Laplace domain):

$$(sM) I_{eod}$$