

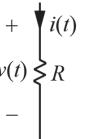
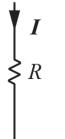
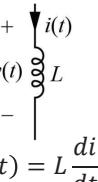
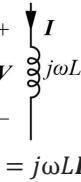
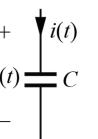
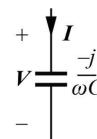
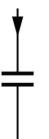
# Inverse Transforms



## Partial Fraction Expansion

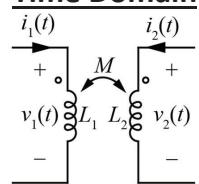


# Circuit Laplace Transform

<u>Time Domain</u>	<u>Phasor Domain</u>	<u>s-Domain</u>
 $v(t) = i(t)R$	 $V = IR$	
 $v(t) = L \frac{di}{dt}$	 $V = j\omega LI$	
 $i(t) = C \frac{dv}{dt}$	 $V = \frac{-j}{\omega C} I$	



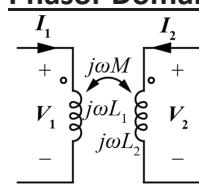
## Time Domain



$$v_1(t) = L_1 \frac{di_1}{dt} + M \frac{di_2}{dt}$$

$$v_2(t) = M \frac{di_1}{dt} + L_2 \frac{di_2}{dt}$$

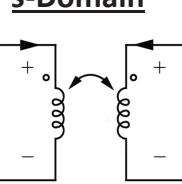
## Phasor Domain



$$V_1 = j\omega L_1 I_1 + j\omega M I_2$$

$$V_2 = j\omega M I_1 + j\omega L_2 I_2$$

## s-Domain



# Differential Equation Laplace Transform



## Transfer Functions

