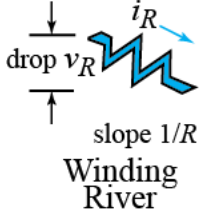
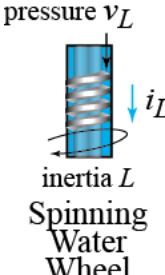
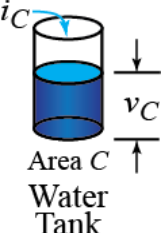
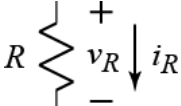
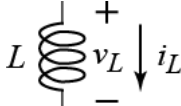
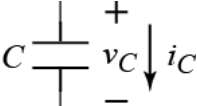


TOOL:

	<i>R</i>	<i>L</i>	<i>C</i>
Water Analogy	 <p>drop v_R slope $1/R$ Winding River</p>	 <p>pressure v_L inertia L Spinning Water Wheel</p>	 <p>Area C Water Tank</p>
Circuit Symbol			
Series Equivalent	$R_{Eq} = R_1 + R_2$	$L_{Eq} = L_1 + L_2$	$C_{Eq} = C_1 \parallel C_2$
Parallel Equivalent	$R_{Eq} = R_1 \parallel R_2$	$L_{Eq} = L_1 \parallel L_2$	$C_{Eq} = C_1 + C_2$
<i>i-v</i> Equation	$v = iR$	$v = L \frac{di}{dt}$	$i = C \frac{dv}{dt}$
Energy Stored	0	$w = \frac{1}{2} Li^2$	$w = \frac{1}{2} Cv^2$
Final Value Equiv	<i>R</i>	wire	open
Source Equivalent		<i>i</i> -source	<i>v</i> -source
Time constant (with <i>R</i>)		$\tau = L / R$	$\tau = RC$
Impedance	<i>R</i>	$j\omega L$	$1/j\omega C$

Note: $A \parallel B = \frac{1}{\frac{1}{A} + \frac{1}{B}}$