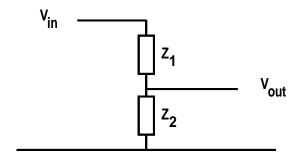


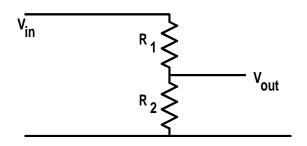
The output from a potential divider

- 1. Is sometimes greater than the input
- 2. Is equal to the input
- 3. Is sometimes less than the input
- 4. Is always less than the input



The output from a generalized potential divider

- 1. Is sometimes greater than the input
- 2. Is equal to the input
- 3. Is sometimes less than the input
- 4. Is always less than the input



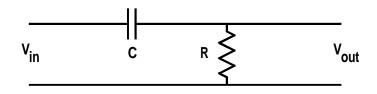
The output from this potential divider is given by

1.
$$\frac{V_o}{V_i} = \frac{R_1}{R_1 + R_2}$$

2.
$$\frac{V_o}{V_i} = \frac{R_1 + R_2}{R_2}$$

3.
$$\frac{V_o}{V_i} = \frac{R_2}{R_1 + R_2}$$

The equation representing the transfer function is



1.
$$\frac{V_o}{V_i} = \frac{j\omega C}{R + j\omega C}$$

2.
$$\frac{V_o}{V_i} = \frac{R}{R + j\omega C}$$

3.
$$\frac{V_o}{V_i} = \frac{R}{R + \frac{1}{j\omega C}}$$

4.
$$\frac{V_o}{V_i} = \frac{j\omega CR}{1+j\omega CR}$$