2.26 Assume clockwise mesh currents for the circuit shown in Fig. P2.26 (below). Use mesh analysis to find these mesh currents.

2.27 For the circuit shown in Fig. P2.27, find $v_o$ when the ideal amplifier (a) is an op amp, and (b) has finite gain $A$.

2.28 For the op-amp circuit shown in Fig. P2.28, find (a) $v_o$ and (b) $i_o$.

2.29 For the op-amp circuit shown in Fig. P2.29, find (a) $v_o$ and (b) $i_o$.

2.30 The op-amp circuit shown in Fig. P2.30 is known as a negative-impedance converter. For this circuit, find (a) $v_o$ and (b) the resistance $r_i$.

2.31 For the op-amp circuit shown in Fig. P2.31, find (a) $v_o$ and (b) the resistance $r_i$.

2.32 For the op-amp circuit shown in Fig. P2.32, interchange the 1-Ω and 2-Ω resistors, and find (a) $v_o$ and (b) the resistance $r_i$.

3.40 For the parallel RC circuit given in Fig. P3.4, suppose that $i(t) = 600\cos(3t)$ A. Find the step responses $v(t)$ and $i(t)$, and sketch these functions.

3.41 For the parallel RL circuit given in Fig. P3.17, find the unit step responses $i(t)$ and $v(t)$, and sketch these functions.

3.42 For the circuit shown in Fig. P3.42, find the step responses $r(t)$ and $i(t)$, and sketch these functions.

3.43 For the circuit given in Fig. P3.30, suppose that $i(t) = 100\sin(2t)$ A. Use Thévenin's theorem to find the step responses $r(t)$ and $v(t)$, and sketch these functions.

3.44 For the circuit given in Fig. P3.32, replace the inductor with a 0.1-F capacitor. Suppose that $i(t) = 100\sin(2t)$ A. Use Thévenin's theorem to find the step responses $v(t)$ and $i(t)$, and sketch these functions.

3.45 For the circuit given in Fig. P3.34, suppose that $v(t) = 120\sin(3t)$ V. Find the step responses $v(t)$ and $i(t)$, and sketch these functions.

3.46 For the circuit given in Fig. P3.34, replace the capacitor with a 0.1-F inductor. Suppose that $i(t) = 120\sin(3t)$ V. Find the step responses $v(t)$ and $i(t)$, and sketch these functions.