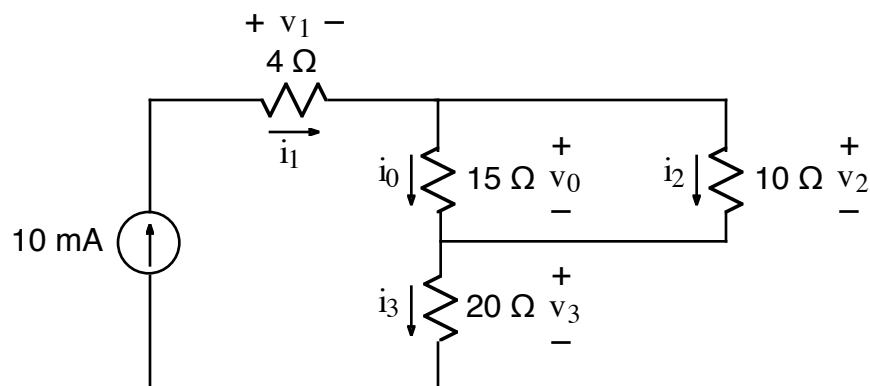


1.
 - a) $v_1 = 42$ and $v_2 = 28$
 - b) $R_1 = 2$ and $R_2 = 5$
2. Complete the following table showing products of prefixes for engineering units:

·	n	μ	m		k	M
n	a	f	p	n	μ	m
μ	f	p	n	μ	m	
m	p	n	μ	m		k
	n	μ	m		k	M
k	μ	m		k	M	G
M	m		k	M	G	T

3.
 - a) $p(t) = i(t) \cdot 1.5V = 1.5 \text{ mW} + 3\cos(2\pi t + 30^\circ) \text{ mW}$
 - b) $w(t = 60s) = \int_0^{60} p(t) dt = 90 \text{ mJ} + \frac{3\sin(2\pi t + 30^\circ)}{2\pi} \Big|_0^{60} \text{ mJ} = 90 \text{ mJ}$
4.
 - a) $v = 5.6 \text{ mA} \cdot 0.5 \text{ k}\Omega = 2.8 \text{ V}$
 - b) $R = 1.2 \text{ k}\Omega + 700 \Omega = 1.9 \text{ k}\Omega$
- 5.



Alternative answer has i_3 and v_3 both upside down from those shown above.