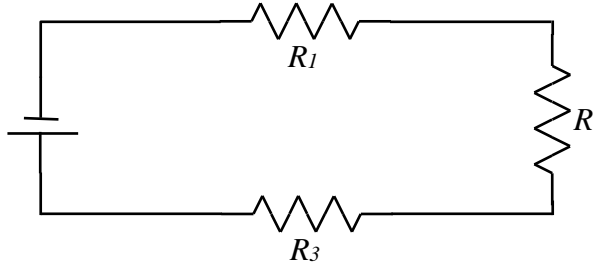


# Circuits

Name \_\_\_\_\_

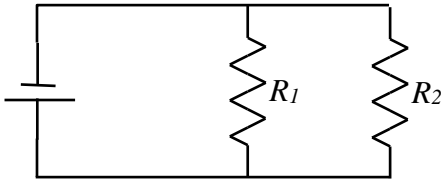
Date \_\_\_\_\_ Per \_\_\_\_\_

1.



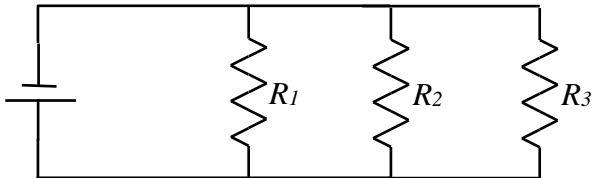
	V	I	R
<b>Total</b>	V	A	$\Omega$
<b>R<sub>1</sub></b>	V	<b>2.00</b> A	<b>4.00</b> $\Omega$
<b>R<sub>2</sub></b>	V	A	<b>6.00</b> $\Omega$
<b>R<sub>3</sub></b>	V	A	<b>8.00</b> $\Omega$

2.



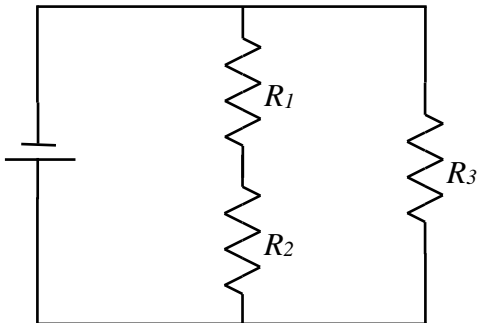
	V	I	R
<b>Total</b>	<b>12.00</b> V	A	$\Omega$
<b>R<sub>1</sub></b>	V	A	<b>2.00</b> $\Omega$
<b>R<sub>2</sub></b>	V	A	<b>4.00</b> $\Omega$

3.



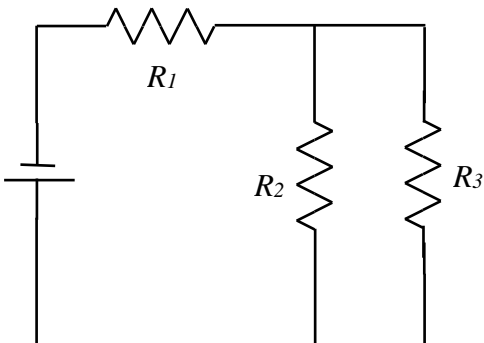
	V	I	R
<b>Total</b>	V	A	$\Omega$
<b>R<sub>1</sub></b>	V	<b>2.00</b> A	$\Omega$
<b>R<sub>2</sub></b>	V	<b>3.00</b> A	<b>12.00</b> $\Omega$
<b>R<sub>3</sub></b>	V	<b>1.00</b> A	$\Omega$

4.



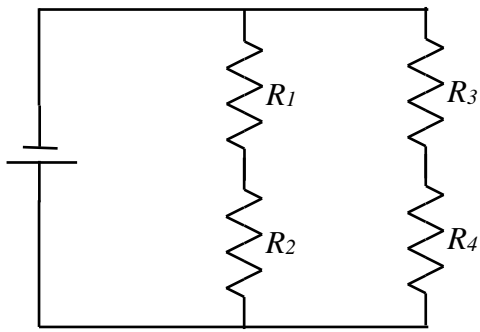
	V	I	R
<b>Total</b>	<b>12.00</b> V	<b>2.00</b> A	$\Omega$
<b>R<sub>1</sub></b>	V	A	<b>6.00</b> $\Omega$
<b>R<sub>2</sub></b>	V	A	<b>4.00</b> $\Omega$
<b>R<sub>3</sub></b>	V	A	<b>15.00</b> $\Omega$

5.



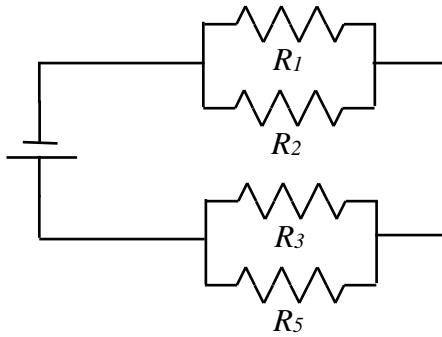
	V	I	R
<b>Total</b>	<b>24.00</b> V	A	$\Omega$
<b>R<sub>1</sub></b>	<b>8.00</b> V	A	$\Omega$
<b>R<sub>2</sub></b>	V	<b>4.00</b> A	$\Omega$
<b>R<sub>3</sub></b>	V	<b>2.00</b> A	$\Omega$

5.



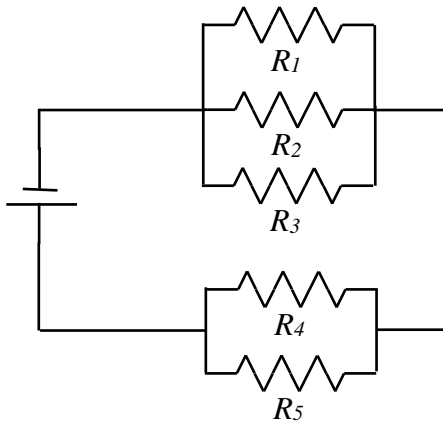
	V	I	R
<b>Total</b>	<b>50.00 V</b>	<b>5.00 A</b>	$\Omega$
<b>R<sub>1</sub></b>	V	<b>2.00 A</b>	$\Omega$
<b>R<sub>2</sub></b>	<b>25.00 V</b>	A	$\Omega$
<b>R<sub>3</sub></b>	<b>10.00 V</b>	A	$\Omega$
<b>R<sub>4</sub></b>	V	<b>3.00 A</b>	$\Omega$

6.



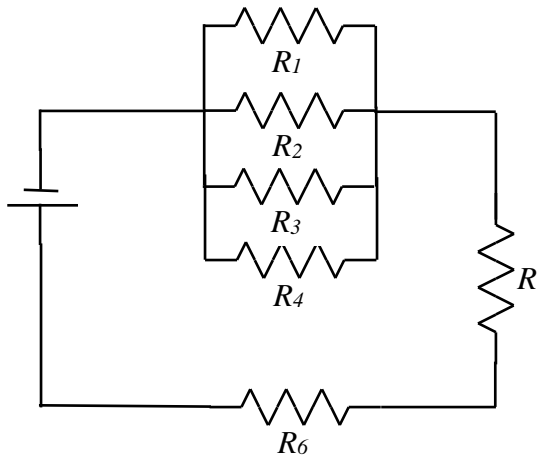
	V	I	R
<b>Total</b>	V	A	$\Omega$
<b>R<sub>1</sub></b>	<b>12.00 V</b>	A	<b>2.00 <math>\Omega</math></b>
<b>R<sub>2</sub></b>	V	A	<b>4.00 <math>\Omega</math></b>
<b>R<sub>3</sub></b>	<b>24.00 V</b>	A	<b>4.00 <math>\Omega</math></b>
<b>R<sub>4</sub></b>	V	A	<b>8.00 <math>\Omega</math></b>

7.



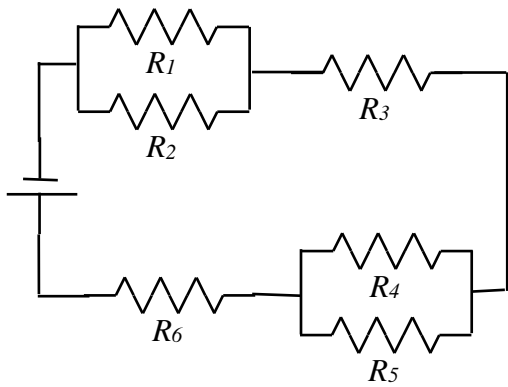
	V	I	R
<b>Total</b>	<b>46.00 V</b>	A	$\Omega$
<b>R<sub>1</sub></b>	V	<b>3.00 A</b>	$\Omega$
<b>R<sub>2</sub></b>	V	<b>4.00 A</b>	$\Omega$
<b>R<sub>3</sub></b>	V	A	<b>6.00 <math>\Omega</math></b>
<b>R<sub>4</sub></b>	V	<b>3.00 A</b>	$\Omega$
<b>R<sub>5</sub></b>	V	<b>7.00 A</b>	$\Omega$

8.



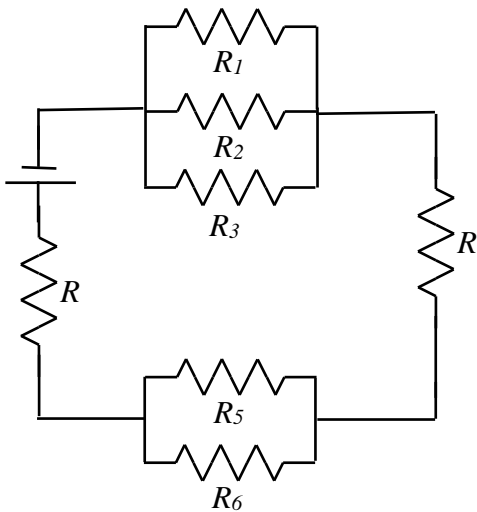
	V	I	R
<b>Total</b>	V	A	$\Omega$
<b>R<sub>1</sub></b>	V	A	<b>20.00</b> $\Omega$
<b>R<sub>2</sub></b>	<b>10.00</b> V	A	$\Omega$
<b>R<sub>3</sub></b>	V	A	<b>4.00</b> $\Omega$
<b>R<sub>4</sub></b>	V	<b>1.00</b> A	$\Omega$
<b>R<sub>5</sub></b>	V	<b>5.00</b> A	<b>5.00</b> $\Omega$
<b>R<sub>6</sub></b>	V	A	<b>6.00</b> $\Omega$

9.



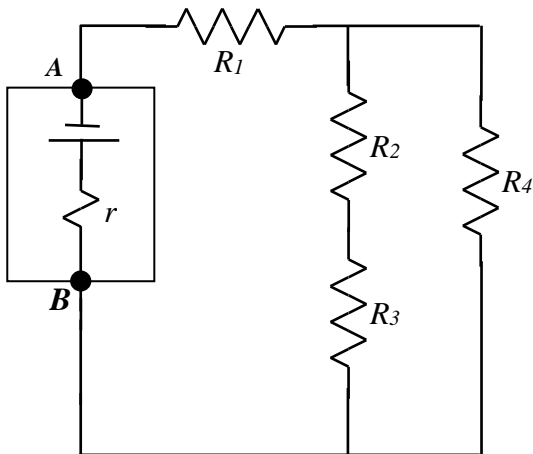
	V	I	R
<b>Total</b>	<b>30.00</b> V	A	$\Omega$
<b>R<sub>1</sub></b>	<b>6.00</b> V	<b>3.00</b> A	$\Omega$
<b>R<sub>2</sub></b>	V	<b>2.00</b> A	$\Omega$
<b>R<sub>3</sub></b>	V	A	<b>3.00</b> $\Omega$
<b>R<sub>4</sub></b>	V	<b>1.00</b> A	$\Omega$
<b>R<sub>5</sub></b>	<b>8.00</b> V	A	$\Omega$
<b>R<sub>6</sub></b>	V	A	$\Omega$

10.



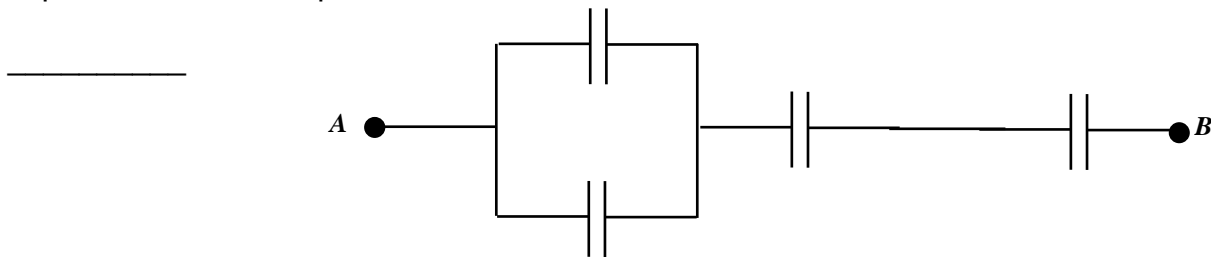
	V	I	R
<b>Total</b>	V	<b>12.00</b> A	$\Omega$
<b>R<sub>1</sub></b>	V	A	$\Omega$
<b>R<sub>2</sub></b>	<b>18.00</b> V	<b>2.00</b> A	$\Omega$
<b>R<sub>3</sub></b>	V	A	<b>3.00</b> $\Omega$
<b>R<sub>4</sub></b>	V	A	<b>4.00</b> $\Omega$
<b>R<sub>5</sub></b>	V	A	<b>2.00</b> $\Omega$
<b>R<sub>6</sub></b>	V	<b>8.00</b> A	$\Omega$
<b>R<sub>7</sub></b>	<b>6.00</b> V	A	$\Omega$

11. The Total generates 24 V of emf and has an internal resistance of  $1.0 \Omega$ .  $R_1 = 4 \Omega$ ,  $R_2 = 2 \Omega$ ,  $R_3 = 4 \Omega$ , and  $R_4 = 6 \Omega$ .



- What is the current through  $R_2$ ?  
\_\_\_\_\_
- What is the voltage through  $R_4$ ?  
\_\_\_\_\_
- How much power does  $R_1$  consume?  
\_\_\_\_\_
- What is the voltage produced by the Total?  
\_\_\_\_\_

12. The following circuit contains four capacitors, each with  $120 \text{ nF}$  of capacitance. What is the total capacitance between points **A** and **B**?



13. The following circuit contains four capacitors, each with  $50 \text{ nF}$  of capacitance. What is the total capacitance between points **A** and **B**?

