

# Drawing Series and Parallel Circuit Diagrams

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<p>1. A series circuit consisting of:</p> <ul style="list-style-type: none"><li>• 12 V electrical source</li><li>• open switch</li><li>• two light bulbs</li><li>• 10 <math>\Omega</math> resistor</li></ul>	
<p>2. A parallel circuit consisting of:</p> <ul style="list-style-type: none"><li>• 9.0 V electrical source</li><li>• open switch</li><li>• three 5.0 <math>\Omega</math> resistor</li></ul>	
<p>3. A circuit consisting of:</p> <ul style="list-style-type: none"><li>• three 1.5 V cells connected in parallel</li><li>• open switch</li><li>• two light bulbs connected in series</li><li>• two 15 <math>\Omega</math> resistor connected in parallel</li></ul>	
<p>4. Draw a circuit diagram consisting of a 9.0 V battery, an ammeter, and a 25 <math>\Omega</math> resistor in series. Include a voltmeter that is measuring the potential difference across the resistor.</p>	
<p>5. Draw a circuit diagram consisting of a battery made up of two 1.5 V cells, one closed switch, two lamps, and an ammeter in series. Show the direction in which the current flows.</p>	
<p>6. Draw a circuit diagram consisting of a battery made up of four 1.5 V cells, one closed switch, one lamp, two 0.50 <math>\Omega</math> resistors in series, and a voltmeter. Show the direction in which the current flows.</p>	

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## Description Diagram

1. A series circuit consisting of:

- 12 V electrical source
- open switch
- two light bulbs
- 10  $\Omega$  resistor

2. A parallel circuit consisting of:

- 9.0 V electrical source
- open switch
- three 5.0  $\Omega$  resistor

3. A circuit consisting of:

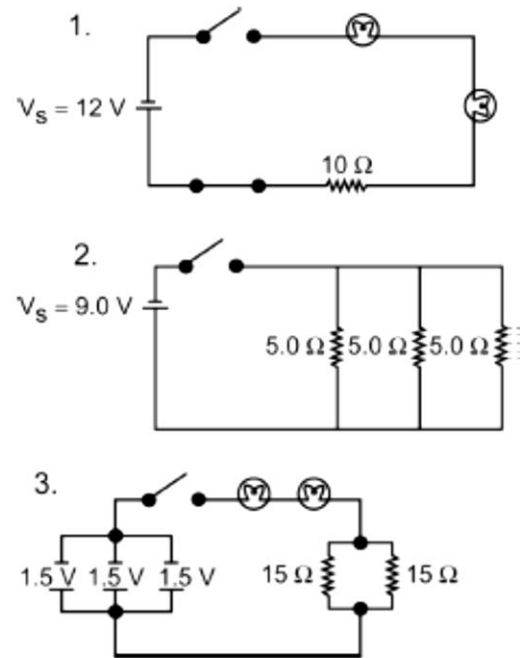
- three 1.5 V cells connected in parallel
- open switch
- two light bulbs connected in series
- two 15  $\Omega$  resistor connected in parallel

1. Draw a circuit diagram consisting of a 9.0 V battery, an ammeter, and a 25  $\Omega$  resistor in series. Include a voltmeter that is measuring the potential difference across the resistor.

2. Draw a circuit diagram consisting of a battery made up of two 1.5 V cells, one closed switch, two lamps, and an ammeter in series. Show the direction in which the current flows.

3. Draw a circuit diagram consisting of a battery made up of four 1.5 V cells, one closed switch, one lamp, two 0.50  $\Omega$  resistors in series, and a voltmeter. Show the direction in which the current flows.

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## BLM 3-30, Designing Circuits

