# WIND STUDY

Wind Study is intended for grades 5-8 and 8-11
Questions posted on: Monday    Answers posted on: Friday
Find downloadable one pagers at www.oneenergy.com/one-energy-feed
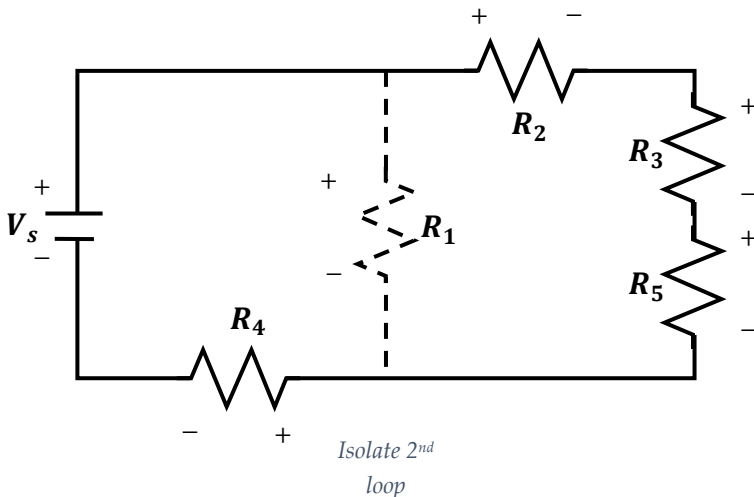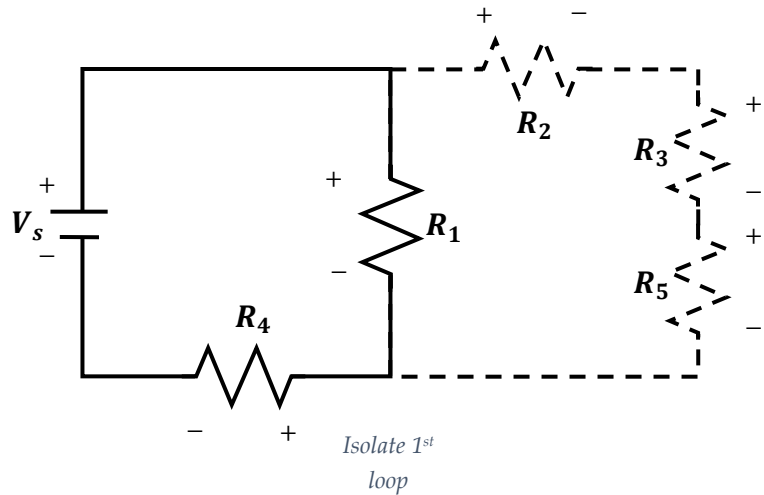
## 2024A10                                                    CIRCUITS, VOLTAGE

**Level 1:**
Figure 2:

$$\Sigma\,V = 0$$

$$V_s + R_1 + R_2 + R_3 = 0$$

$$6\,V - 2\,V - 1.5\,V + R_3 = 0$$

$$2.5\,V + R_3 = 0$$

$$R_3 = -2.5\,V$$
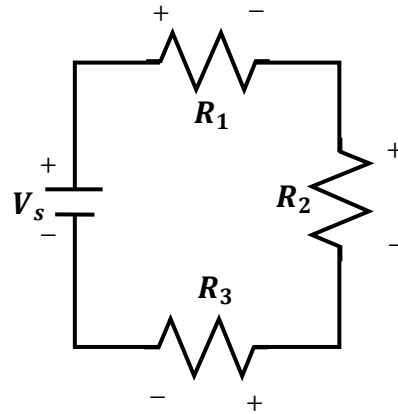


**Level 2:**

Figure 3:

$$\Sigma\,V = 0$$

$$V_s + R_1 + R_4 = 0$$

$$12\,V - 9\,V + R_4 = 0$$

$$3\,V + R_4 = 0$$

$$R_4 = -3\,V$$



*Isolate 1st loop*



*Isolate 2nd loop*

$$\Sigma\,V = 0$$

$$V_s + R_2 + R_5 + R_4 + R_3 = 0$$

$$12\,V - 2.5\,V - 3\,V - 3\,V + R_3 = 0$$

$$3.5\,V + R_3 = 0$$

$$R_3 = -3.5\,V$$