

$$\text{solve}(\{I1 - I2 - I3 = 0, E1 - R2 \cdot I2 + R3 \cdot I3 = 0, R1 \cdot I1 + R3 \cdot I3 - E2 = 0\}, [I1, I2, I3])$$

$$\left[\left[I1 = \frac{R3 E1 + R3 E2 + R2 E2}{R3 R1 + R1 R2 + R3 R2}, I2 = \frac{R3 E1 + R3 E2 + R1 E1}{R3 R1 + R1 R2 + R3 R2}, I3 = - \frac{R1 E1 - R2 E2}{R3 R1 + R1 R2 + R3 R2} \right] \right] \tag{1}$$