Found Errors in Solution? >>
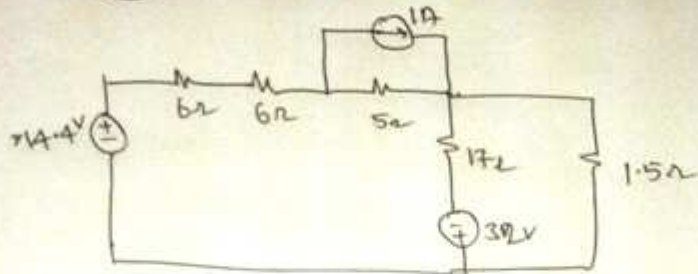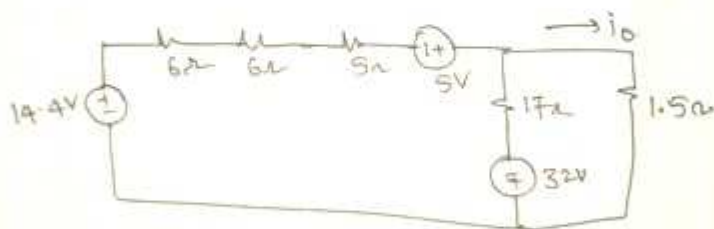
Answer

①
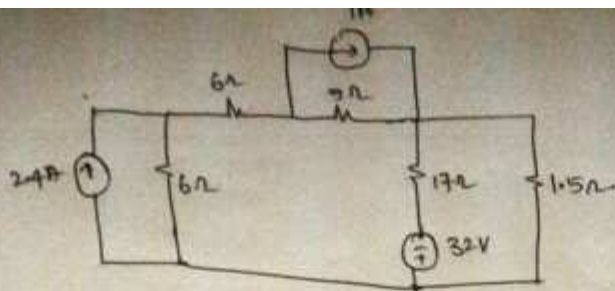
Step 1

(2.4 A) to voltage source $V = (6)(2.4) = 14.4 V.$

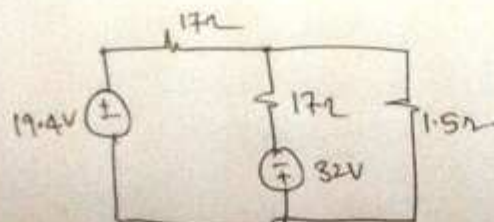**Step 2**

(14 A) to current source

(1 A) to voltage source ⇒ $V = (1)(5) = 5V.$
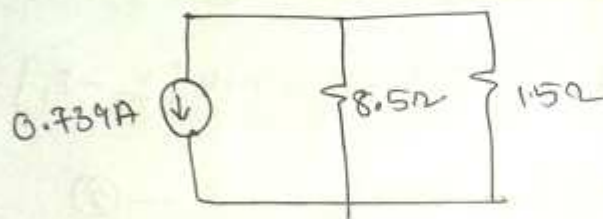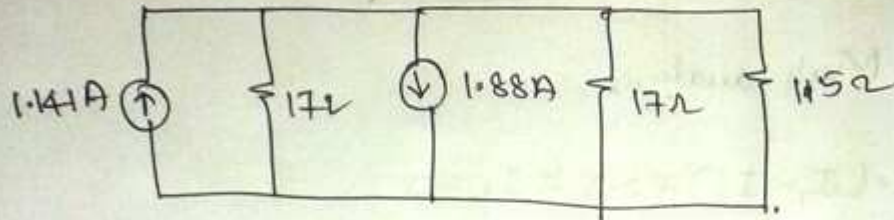

$V = 14.4 + 5 = 19.4 V.$

$R = 6 + 6 + 5 = 17 \Omega$

Step 3

(19.4 V), (32 V) to current sources

$$I_1 = \frac{19\cdot4}{17} = 1\cdot141 \, A$$

$$I_2 = \frac{32}{17} = 1\cdot88 \, A$$

Step 4

By current division rule

$$i_0 = -(0\cdot739) \frac{[8\cdot5]}{8\cdot5 + 1\cdot5}$$

$$\boxed{i_0 = -0\cdot628 \, A}$$