$$6 + 12 = \frac{V_1 - V_2}{2} + \frac{V_1}{4}$$

$$18 = \frac{V_1 - V_2}{2} + \frac{V_1}{4}$$

multiplying through by 4

$$72 = 2V_1 - 2V_2 + V_1$$

$$72 = 3V_1 - 2V_2 \quad \text{——— (iii)}$$

putting (ii) and (iii) together

$$5V_1 - 8V_2 = 120 \quad \text{——— (iv)}$$

$$3V_1 - 2V_2 = 72 \quad \text{——— (v)}$$

Using elimination method

eq (iii) x 4

$$5V_1 - 8V_2 = 120 \quad \text{——— (iv)}$$

$$12V_1 - 8V_2 = 288 \quad \text{——— (v)}$$

subtracting (iv) from (v)

$$-7V_1 = -168$$

$$V_1 = 24V$$

substituting V_1 into (iv)

$$120 - 8V_2 = 120$$

$$-8V_2 = 0$$

$$V_2 = 0$$

$i_1 = 6A$

$i_2 = \frac{24 - 0}{2}$

$i_2 = 12A$

$i_3 = \frac{24 - 0}{4}$

$i_3 = 6A$

$i_4 = 12A$

$i_5 = \frac{0}{10}$

$i_5 = 0A$

$i_6 = \frac{0}{5}$

$i_6 = 0A$ ∴ $i_1, i_2, i_3, i_4, i_5, i_6$ are 6A, 12A, 6A, 12A, 0A, 0A respectively