



Current flows from + to - potential,
 so I_1 and I_2 are as shown.

and

$$I_1 = \frac{\Delta V_1}{R_1} = 2A$$

$$I_2 = \frac{\Delta V_2}{R_2} = 3A$$

Question at a : assume I is to the right.

$$I_1 = I + I_2$$

$$I = I_1 - I_2 = -1A$$

negative sign means I is
 actually the other way.

So $I = 1A$ from right to left.
