

Answer to the Question No. 2

We know,

$$Q = ne$$

where, n = the number of electrons
 e = charge on one electron

Here, n , the number of the electron, can never be a fractional number. Implying that if we divide Q by e we get number of electrons.

$$n = \pm 3.25 / 1.602 \times 10^{-19}$$

$$= \pm 13.4853$$

since it is a fractional number. ~~it is~~ a charge of 3.25 can not exist.

Answer to the Question No. 2

$$n = Q/e = \frac{-1.602 \times 10^{-19}}{-6.8} =$$

$$n = Q/e = \frac{-6.8}{-1.602 \times 10^{-19}} = 7.4617$$

$$\approx 7$$

Answer to the Question No. 3

→ Positive charges

→ Since electron, a negative charge, always higher potential energy to and low voltage to lower potential energy and high voltage the positive charge does the latter.

Answer to the Question No. 4

negative charge e^- could go from low voltage to high voltage, so it could go ~~to left to~~ from left to right.

Answer to the Question No. 5

$$W = q (V_a - V_b) = -5 (-12 + 7) = 25 \text{ Joules}$$

Answer to the Question No. 6

$$W = q (V_a - V_b) = -4 (-12 + 7) = 20 \text{ Joules}$$

Answer to the Question No. 7

$$I, A = \frac{Q}{\tau} = \frac{84 \text{ C}}{5 \text{ sec.}} = 0.000066 \text{ Amp.}$$