

Unit 4 Formulae

$$1) \Delta E^{\circ}_{\text{Cell}} = E_r^{\circ}_{\text{cathode}} - E_r^{\circ}_{\text{anode}}$$

ΔE° = standard cell potential

E_r° = standard reduction potential

** change sign on senior periodic table to use above formula

$$2) q = It$$

q = charge (measured in coulombs, C)

I = current (measured in amperes, A)

t = time (measured in seconds)

$$3) n_{e^-} = q/F \quad \text{or} \quad n_{e^-} = It/F$$

n_{e^-} = moles of electrons (in moles, mol)

q = charge (in coulombs, C)

F = Faraday's constant (9.65×10^4 C/mol)