Redox Reaction

$$CrO_4{}^{-2} + 7H^+ + 2I^- \rightarrow Cr^{+3} + I_2 + 4H_2O$$

Thiosulfate Reaction

$$I_2 + 2S_2O_3{}^{-2} \rightarrow S_4O_6{}^{-2} + 2I^-$$

$$C_A\left(\frac{oz}{gal}\right) =$$

$$mL\ Thio\ \left(\frac{1}{5\ ml\ Chromic\ acid\ Sol.}\right)\left(\frac{10^3 mL}{L}\right)\left(\frac{0.1\ mol\ Thio}{10^3 mL\ Thio}\right)\left(\frac{1\ mol\ CA}{2\ mol\ Thio}\right)\left(\frac{118.01g\ Chromic\ Acid}{1\ mol\ Chromic\ Acid}\right)\left(\frac{3.785L}{1\ gal}\right)\left(\frac{1\ oz}{28.349g}\right)$$

$$C_A\left(\frac{oz}{gal}\right) = mL\ Thio * 0.15 = Concentration\ of\ Chromic\ Acid$$