Question	Marking guidance	Additional Comments/Guidelines	Mark
05.1	Amount of Nitrogen monoxide = 1.15 mol Amount of Chlorine = 0.825 mol	Answers to min 2sf	1 1
05.2	$K_c = \frac{[NOCl]^2}{[NO]^2[Cl_2]}$		1
05.3	$1.32 \times 10^{-2} = \frac{[NOCl]^2}{\left[0.85/0.800\right]^2 \left[0.458/0.800\right]}$ $[NOCl]^2 = 8.53 \times 10^{-3}$ mol^{2}dm^{-6} [NOCl] = 0.0924 mol dm^{-3} n(NOCl) = 0.0924 x 0.800 = 0.0739 mol (answer to 2sf or more)	M1 = divides mole quantities by 0.800 M2 = evaluates $[NOCl]^2$ M3 = $\sqrt{M2}$ M4 = M3 x 0.800 (allow ecf on an incorrect volume used in M1) If no division in M1 then max 3 M2 = 4.37×10^{-3} M3 = 0.0661 mol dm^{-3} M4 = 0.0529 mol If Kc upside down then can still score 4 M1 = divides mole quantities by 0.800 M2 = 48.96 M3 = 7.00 mol dm^{-3} M4 = 0.600 mol Incorrect rearrangement loses M2	1 1 1 1