• The following data were obtained for the reaction between gaseous nitric oxide and chlorine at -10 °C.

Marks 4

$$2NO(g) \, + \, Cl_2(g) \, \rightarrow \, 2NOCl(g)$$

Experiment Number	Initial [NO] (mol L ⁻¹)	Initial [Cl ₂] (mol L ⁻¹)	Initial Reaction Rate (mol L ⁻¹ min ⁻¹)
1	0.10	0.10	0.18
2	0.10	0.20	0.36
3	0.20	0.20	1.44

Deduce the rate law for this reaction and calculate the value of the rate constant.

RATE LAW	RATE CONSTANT
Answer:	Answer: