

### Practice Problem #1

**Table 13.2** Rate Data for the Reaction between  $F_2$  and  $ClO_2$

	$[F_2](M)$	$[ClO_2](M)$	Initial Rate (M/s)
1.	0.10	0.010	$1.2 \times 10^{-3}$
2.	0.10	0.040	$4.8 \times 10^{-3}$
3.	0.20	0.010	$2.4 \times 10^{-3}$

### Practice Problem #2

Run #	Initial [A] ( $[A]_0$ )	Initial [B] ( $[B]_0$ )	Initial Rate ( $v_0$ )
1	1.00 M	1.00 M	$1.25 \times 10^{-2}$ M/s
2	1.00 M	2.00 M	$2.5 \times 10^{-2}$ M/s
3	2.00 M	2.00 M	$2.5 \times 10^{-2}$ M/s

### Practice Problem #3

$[NO_{(g)}]$ ( $mol\ dm^{-3}$ )	$[Cl_{2(g)}]$ ( $mol\ dm^{-3}$ )	Initial Rate ( $mol\ dm^{-3}\ s^{-1}$ )
0.250	0.250	$1.43 \times 10^{-6}$
0.250	0.500	$2.86 \times 10^{-6}$
0.500	0.500	$1.14 \times 10^{-5}$

### Practice Problem #4

Exp.	$[S_2O_8^{2-}]$	$[I^-]$	Initial Rate (M/s)
1	0.08	0.034	$2.2 \times 10^{-4}$
2	0.08	0.017	$1.1 \times 10^{-4}$
3	0.16	0.017	$2.2 \times 10^{-4}$

### What counts as showing my work?

Trials being used	Which [ ] is held constant	Which [ ] is being changed and by what factor is it changed by	What factor is the rate changed by	Order based on rate data
1 & 3	$[H_2]$	$[O_2]$ x 2	x 2	1

Does not have to be in chart format!

Basically you need to tell me which trials to look at, and what they tell you

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