Rate Law Questions

17.

Trials	[A]	[B]	Rate
1	0.100	0.100	2×10^{-3}
2	0.200 ↑ changed	0.100 ↑ control	2×10^{-3}

$$\frac{[A]}{2} \qquad 1$$

$$\Delta[A]^q = 1$$

$$2^q = 1$$

$$q = 0$$

$[B] \times 2$ Rate $\frac{4.00 \times 10^{-3}}{2.00 \times 10^{-3}} = 2$

$$\Delta[B] \qquad \text{Rate}$$

$$2^b = 2$$

$$2^1 = 2$$

$b = 1$

Rate Law –

$$\text{Rate} = k[A]^0[B]^1$$

$$\text{Rate} = k[B]$$

Equilibrium Analogy

1. Rate gets slower over time.
2. Rate gets faster....
3. End of reaction, products favoured
4. Equilibrium is found where curves flatten.
6. Products are also changing to reactants.