

Practice Problems Set #5

DIRECTIONS:

- YOU MUST ANSWER EVERY QUESTION IN ORDER TO GET ANY CREDIT!!!
- HIGHLIGHT EACH QUESTION NUMBER ON YOUR NOTEBOOK PAPER SO I CAN QUICKLY SEE THAT YOU HAVE DONE ALL THE PROBLEMS. IF I CAN'T FIND AN ANSWER, YOU WON'T GET CREDIT FOR ANY OF THE PROBLEMS!!!!
- HIGHLIGHT ANY QUESTION NUMBERS ON THIS PAGE THAT YOU WANT HELP WITH, HAVE QUESTIONS WITH, ETC!!!

Q #	QUESTION
1	What is equilibrium?
2	Are rates equal or concentrations equal when a reaction is at equilibrium?
3	What are the factors that can shift equilibrium?
4	Which way would equilibrium shift if N ₂ was removed? $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \leftrightarrow 2\text{NH}_3(\text{s}) + 22 \text{ kJ}$
5	What would happen to equilibrium if NH ₃ was added? $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \leftrightarrow 2\text{NH}_3(\text{s}) + 22 \text{ kJ}$
6	What is the effect on the concentration of chlorine if we add PCl ₅ to $\text{PCl}_5(\text{s}) \leftrightarrow \text{PCl}_3(\text{g}) + \text{Cl}_2(\text{g})$
7	What is the effect on the concentration of chlorine if add CO to $\text{CO}(\text{g}) + \text{Cl}_2(\text{g}) \leftrightarrow \text{COCl}_2$
8	What is the effect on the concentration of chlorine if decrease pressure $\text{H}_2(\text{g}) + \text{Cl}_2(\text{g}) \leftrightarrow 2\text{HCl}(\text{g})$
9	What is the effect on the concentration of chlorine if increase pressure $2\text{HI}(\text{g}) + \text{Cl}_2(\text{g}) \leftrightarrow 2\text{HCl}(\text{g}) + \text{I}_2(\text{s})$
10	What is the effect on the concentration of chlorine if cool $4\text{HCl}(\text{g}) + \text{O}_2(\text{g}) \leftrightarrow 2\text{Cl}_2(\text{g}) + 2\text{H}_2\text{O}(\text{g}) + \text{heat}$

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