

AP Chemistry Daily Videos

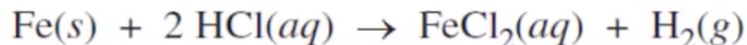
4.5 Stoichiometry

[Daily Video #1](#)

[Daily Video #2](#)

1. What is stoichiometry? Explain in your own words.

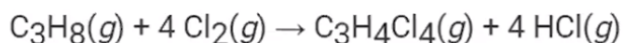
2. Show your work for the following MC question. Be sure to include any formulas. Make any notes of how to solve the problem based on the video's explanation. (please attempt without a calculator)



When a student adds 30.0 mL of 1.00 M HCl to 0.56 g of powdered Fe, a reaction occurs according to the equation above. When the reaction is complete at 273 K and 1.0 atm, which of the following is true?

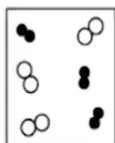
- (A) HCl is in excess, and 0.100 mol of HCl remains unreacted. (C) 0.015 mol of FeCl₂ has been produced.
- (B) HCl is in excess, and 0.020 mol of HCl remains unreacted. (D) 0.22 L of H₂ has been produced.

3. Please show your work for next MC question below.

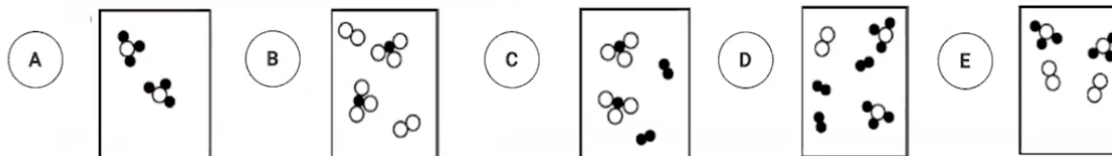
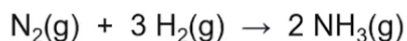


A 6.0 mol sample of $\text{C}_3\text{H}_8(g)$ and a 20. mol sample of $\text{Cl}_2(g)$ are placed in a previously evacuated vessel, where they react according to the equation above. After one of the reactants has been totally consumed, how many moles of $\text{HCl}(g)$ have been produced?

4. Please show your work for the following MC question below.



The diagram at left represents $\text{H}_2(g)$ and $\text{N}_2(g)$ in a closed container. Which of the following diagrams would represent the results if the reaction shown below were to proceed as far as possible?



© 5:40 in Daily Video #2 What is the take away? Summarize in your own words.