



Name _____ Class _____ Date _____

1 Which formula correctly represents the **product** of an **addition reaction** between ethene and chlorine?

- A CH_2Cl_2
- B CH_3Cl
- C $\text{C}_2\text{H}_4\text{Cl}_2$
- D $\text{C}_2\text{H}_3\text{Cl}$

2 Given the equation:



Which species undergoes **reduction**?

- A C(s)
- B H^+
- C C^{2+}
- D $\text{H}_2\text{(g)}$

3 Given the unbalanced equation:



When the equation is correctly balanced using the *smallest* whole-number coefficients, what is the **coefficient of CO**?

- A 1
- C 3

4 Given the reaction:



Which species undergoes **reduction**?

- A Al
- C Al^{3+}
- B Fe
- D Fe^{3+}

5



PREVIEW

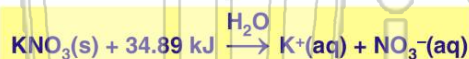
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- A C_2H_4
- B C_2H_6
- C C_2H_8
- D C_2H_8

- B $\text{C(s)} + \text{O}_2\text{(g)} \rightarrow \text{CO}_2\text{(g)}$
- C ${}^2_1\text{H} + {}^3_1\text{H} \rightarrow {}^4_2\text{He} + {}^1_0\text{n}$
- D ${}^{235}_{92}\text{U} + {}^1_0\text{n} \rightarrow {}^{142}_{56}\text{Ba} + {}^{91}_{36}\text{Kr} + 3 {}^1_0\text{n}$

9 Given the balanced equation:



Which statement best describes this process?

- A It is endothermic and entropy increases.
- B It is endothermic and entropy decreases.
- C It is exothermic and entropy increases.
- D It is exothermic and entropy decreases.

10 Given the reaction:



In this reaction, ammonia molecules (NH_3) act as a **base** because they

- A accept hydrogen ions (H^+)
- B accept hydroxide ions (OH^-)
- C donate hydrogen ions (H^+)
- D donate hydroxide ions (OH^-)



ANSWER KEY

Which formula correctly represents the **product** of an **addition reaction** between ethene and chlorine?

- A CH₂Cl₂
- B CH₃Cl
- C C₂H₄Cl₂
- D C₂H₃Cl

(C)

Given the equation:



Which species undergoes **reduction**?

- A C(s)
- B H⁺
- C C²⁺
- D H₂(g)

(b)

Given the unbalanced equation:



When the equation is correctly balanced using the *smallest* whole-number coefficients, what is the **coefficient of CO**?

- A 1
- B 2
- C 3
- D 4

(C)

Given the reaction:



Which species undergoes **reduction**?

- A Al
- B Fe
- C Al³⁺
- D Fe³⁺

(d)



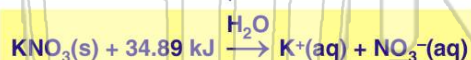
PREVIEW

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- B C₂H₆
- C C₂H₆
- D C₂H₈

- C $1\text{H} + 1\text{H} \rightarrow 2\text{He} + 0\text{n}$
- D ${}^{235}_{92}\text{U} + {}^1_0\text{n} \rightarrow {}^{142}_{56}\text{Ba} + {}^{91}_{36}\text{Kr} + 3{}^1_0\text{n}$

Given the balanced equation:



Which statement best describes this process?

- A It is endothermic and entropy increases.
- B It is endothermic and entropy decreases.
- C It is exothermic and entropy increases.
- D It is exothermic and entropy decreases.

(a)

Given the reaction:



In this reaction, ammonia molecules (NH₃) act as a **base** because they

- A accept hydrogen ions (H⁺)
- B accept hydroxide ions (OH⁻)
- C donate hydrogen ions (H⁺)
- D donate hydroxide ions (OH⁻)

(a)