



Name _____ Class _____ Date _____

1 Which measurement contains a total of **three significant figures**?

- A 0.12
- B 012
- C 120
- D 120.



2 A student determined the **solubility** of an **unknown solid** in various **solvents** as shown in the table below.

Based on these solubility results, the **unknown solid** is best described as

Solvent	Solubility
benzene	insoluble
water	soluble
ethanol	slightly soluble
toluene	insoluble

- A ionic
- B nonpolar
- C network
- D metallic

3 A student found the **boiling point** of a liquid to be **80.4°C**. If the liquid's **actual boiling point** is **80.6°C**, the **experimental percent error** is equal to

A $\frac{80.6 - 80.4}{80.6} \times 100$ C $\frac{80.5 - 80.4}{80.5} \times 100$

4 A student adds **solid KCl** to water in a flask. The flask is sealed with a stopper and thoroughly shaken until no more solid KCl dissolves. Some solid KCl is **still visible** in the flask. The solution in the flask is

- A saturated and is at equilibrium with the solid KCl
- B saturated and is not at equilibrium with the solid KCl
- C unsaturated and is at equilibrium with the

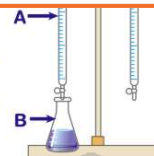


PREVIEW

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7 salt B.
 B The water lost energy to both salt A and salt B.
 C The water gained energy from salt A and lost energy to salt B.
 D The water lost energy to salt A and gained energy from salt B.

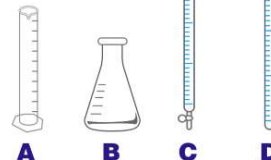
- A buret and Erlenmeyer flask
- B buret and volumetric flask
- C pipet and Erlenmeyer flask
- D pipet and volumetric flask



9 A solution contains 12.55 grams of a solid dissolved in 50.0 milliliters of water. What is the **number of grams of solid dissolved per milliliter of water**, rounded to the correct number of significant figures?

- A 0.25 g/mL
- B 0.251 g/mL
- C 0.3 g/mL
- D 0.2510 g/mL

10 Which piece of glassware is used for **accurately measuring volumes** of an acid and a base during a **titration**?





ANSWER KEY

Which measurement contains a total of **three significant figures**?

- A 0.12
- B 012
- C 120
- D 120.



(d)

A student determined the **solubility of an unknown solid** in various **solvents** as shown in the table below.

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(a)

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- D $\frac{80.5 - 80.4}{80.4} \times 100$

(a)

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(a)

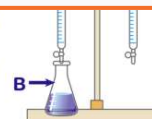


PREVIEW

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- B The water lost energy to both salt A and salt B.
- C The water gained energy from salt A and lost energy to salt B.
- D The water lost energy to salt A and gained energy from salt B.

- A buret and Erlenmeyer flask
- B buret and volumetric flask
- C pipet and Erlenmeyer flask
- D pipet and volumetric flask

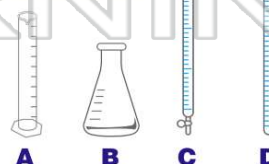


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(b)

Which piece of glassware is used for **accurately measuring volumes** of an acid and a base during a **titration**?



(c)