

**PLEASE HELP!!! 25 POINTS! Phosphoric acid reacts with sodium hydroxide:  $\text{H}_3\text{PO}_4(\text{aq}) + 3\text{NaOH}(\text{aq}) \rightarrow \text{Na}_3\text{PO}_4(\text{aq}) + 3\text{H}_2\text{O}(\text{l})$  If 7.50 mol  $\text{H}_3\text{PO}_4$  is made to react with 15.0 mol NaOH, identify the limiting reagent. Show all work!**

Answer:

Sodium hydroxide (NaOH) is the limiting reactant

Explanation:

Step 1: Data given

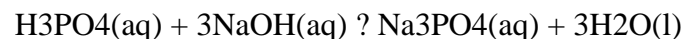
Number of moles of NaOH = 15.0 mol

Number of moles of  $\text{H}_3\text{PO}_4$  = 7.50 mol

Molar mass of NaOH = 40 g/mol

Molar mass of  $\text{H}_3\text{PO}_4$  = 98 g/mol

Step 2: The balanced equation:



Step 3: Calculate the limiting reactant

For 1 mole of  $\text{H}_3\text{PO}_4$ , we need 3 moles of NaOH

NaOH is the limiting reactant. It will completely be consumed. (15 moles)

H<sub>3</sub>PO<sub>4</sub> is in excess, there will react  $15.0 / 3 = 5$  moles

There will remain  $7.5 - 5.0 = 2.5$  moles

There will be produced  $15.0/3 = 5.0$  moles of Na<sub>3</sub>PO<sub>4</sub>

There will be produced 15.0 moles of H<sub>2</sub>O

Sodium hydroxide (NaOH) is the limiting reactant

Kim takes her 7 children to the carnival. If she buys 30 tickets for them, which of the following best describes how many tickets each of her children get?

What is homeostasis? an organism that obtains energy from the sun

an organism that obtains energy from another organism

maintaining stability in an organism's internal environment

a process that produces an exact copy of a parent

Good morning, help im dum Match the structure in column 1 to the characteristics in column 2.

A. Moho barrier

B. Oceanic crust

C. Upper mantle

D. Lower mantle

Where crust meets the mantle

Thinnest layer

Located near the outer core

Layer that moves the crust

Is this statement true or false? Kuna women traditionally made molas as a way to decorate functional items of clothing.

julis needs 2 pounds of beef to make 20 servings of his famouse chili if 5 more people decide to attend the party how many pounds of beef will julius need to make enough chili

Which sentence uses brackets correctly? Since the speaker is going mad, I wonder if it [the raven] is actually perched above the door.

Since the speaker is going mad, I wonder if [it the raven] is actually perched above the door.

[Since the speaker is going mad], I wonder if it the raven is actually perched above the door.

Since the speaker is going mad, [I wonder if] it the raven is actually perched above the door.

The highly reactive elements in group 7A are known for forming salts. What are they called? transition metals

metalloids

halogens

noble gases

Countries with traditional economies are often less developed because

What is the answer to eight ones six tens

The newly formed Democratic-Republican Party believed in the need to support political power at the \_\_\_\_\_ level.

Which of the following is a criticism of the use of criminal background checks and credit reports in the selection process? Group of answer choices  
1. It reduces instances of a glass ceiling.  
2. It leads to an increase in the number of status-blind employment decisions.  
3. It often results in a disparate impact of minority applicants.  
4. It is merely an indicator of the past and not a predictor of the future.

Which sequence best represents sexual reproduction?  
1. mitosis ? gametes ? zygote ? fertilization  
2. gametes ? meiosis ? mitosis ? fertilization  
3. fertilization ? gametes ? meiosis ? zygote  
4. meiosis ? gametes ? fertilization ? zygote?

Justification for U.S. involvement in both the Korean War and Vietnam War is often attributed to which of the following?  
A. NATO

B. The Marshall Plan

C. The Truman Doctrine

D. The League of Nations

What is the causes of rural urban migration

when screening for STIs, which of the following might be examined by a doctor?  
A. pelvis  
B. blood  
C. urine  
D. Band C only  
E. All of the above

Find Each unit rate. Determine which is lower. Ingredient D:  $\frac{1}{3}$  cup for  $\frac{3}{4}$  cup serving.

Simplify the expression  $-3(x + 3)^2 - 3 + 3x$ . What is the simplified expression in standard form?

Which is equal fraction and which is lower fraction  $\frac{3}{4}$   $\frac{1}{3}$   $\frac{2}{6}$   $\frac{2}{3}$

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