Presented by:
The Academic Center for Excellence
Of 60 patients treated with a certain medication, 24 showed no improvement. What percentage of patients improved?

A. 24%
B. 60%
C. 36%
D. 40%
What is the maximum number of 1 ½-inch strips of tape that can be cut from a 480-inch roll of tape?

A. 240
B. 320
C. 160
D. 720
A man estimates that 1/5 of his salary is spent for taxes, 1/4 for rent, and 1/10 for insurance. What fraction of his salary is left for other expenses and savings?

A. 3/19
B. 16/19
C. 11/20
D. 9/20
A 3-oz serving of corned beef hash supplies 155 calories. Approximately how many calories will be supplied in a 5-oz serving?

A. 258
B. 274
C. 248
D. 93
At the start of a diet, Mr. Smith weighed 184 lbs. Eight days later, he weighed 179 lbs. What was his average weight loss per day?

A. $\frac{3}{4}$ lbs
B. 5 lbs
C. $\frac{5}{8}$ lbs
D. $\frac{1}{2}$ lb
If 80% of the 130 students enrolled in a class earned passing grades, how many did not?

A. 26  
B. 30  
C. 104  
D. 130
A patient needs 500 milligrams of a certain drug each day. For a 30-day supply of drugs administered at this rate, how many grams are needed?

A. 1,500
B. 35
C. 30
D. 15
A ratio of substance A to substance B in a mixture is 2:3. If the mixture contains 12 mg of substance A, how much is there of substance B?

A. 18 mg  
B. 16 mg  
C. 9 mg  
D. 8 mg
Two out of five males in the U.S. between the ages of 18 and 29 live with their parents. If there are 60 million males in that age group in the U.S., how many of them live with their parents?

A. 15,000,000

B. 23,000,000

C. 24,000,000

D. 35,000,000
Solve:
\[x + 2[3-5(1-x)] = 3(x-3)+5\]

A. \(x = 0\)
B. \(x = 2\)
C. \(x = 4\)
D. \(x = 8\)
How many liters are in 375 mL?

A. 0.000375
B. 0.00375
C. 0.0375
D. 0.375
One ounce of cheese contains 96 calories. How many calories are in 2 ½ oz of cheese?

A. 240
B. 230
C. 48.5
D. 38.4
A fraction equals 8/9. Its numerator is 7 less than its denominator. Find the numerator of this fraction.

A. 24
B. 29
C. 40
D. 56
20% of the residents of a certain area are expected to become ill this year. If 25,000 people live in this area, how many are expected to become ill?

A. 6,250
B. 5,000
C. 1,250
D. 500
A rectangle is three times as long as it is wide and has an area of 48 square units. What is the length in units of the rectangle?

A. 4
B. 16
C. 12
D. 48
Given the unbalanced equation

$\underline{\text{\_\_KClO}}_3 \rightarrow \underline{\text{\_\_KCl}} + \underline{\text{\_\_O}}_2$

What is the coefficient of $\text{O}_2$?

A. 1
B. 2
C. 3
D. 4
There are 5 g of salt dissolved in 25 mL of water. What percentage solution is it?

A. 5%
B. 12.5%
C. 20%
D. 25%
Which organisms are classified as protists?

A. Monkeys, apes, and man
B. Fungi, ferns, and mollusks
C. Protozoa and alga
D. Protozoa, bacteria, and worms
Two atoms are isotopes if they have the same atomic number but a different number of...

A. Neutrons
B. Ions
C. Electrons
D. Protons
Shivering to maintain a 98.6° F temperature in cold weather is an example of ...

A. Synthesis
B. Hydrolysis
C. Homeostasis
D. Transpiration
The first step by which a mutation may occur is a change in the ...

A. Messenger RNA  
B. Transfer RNA  
C. Amino acid in a protein synthesis  
D. Location of a nitrogen base in DNA
Which of these biological processes includes the other three?

A. Cell respiration
B. Krebs cycle
C. Electron transport chain
D. Anaerobic splitting of glucose
The tiny projections in the small intestine adapted for absorption are called...

A. Venules
B. Villi
C. Alveoli
D. Ventricles
Most of the work done by the human kidney occurs in the ...

A. Nephron
B. Neuron
C. Ureter
D. Alveolus
A cell is placed in a drop of distilled water. The cell swells and bursts. The most likely reason for this is that...

A. Active transport of salt occurred.
B. Water moved from an area of low particle concentration to an area of high particle concentration.
C. Water moved from an area of high concentration to low concentration.
D. Salts from the distilled water entered the cell.
Which of the following formulas would be most probable for a compound formed from Aluminum and Sulfur? (Aluminum has an oxidation number of 3+. Sulfur has an oxidation number of 2-.)

A. \( \text{AlS} \)

B. \( \text{Al}_3\text{S}_2 \)

C. \( \text{Al}_2\text{S} \)

D. \( \text{Al}_2\text{S}_3 \)
A negatively charged object has...

A. only protons
B. only electrons
C. more protons than electrons
D. more electrons than protons
The atomic masses of Ca, O, and H are shown below;
Ca = 40
O = 16
H = 1

What is the molecular weight of Ca(OH)$_2$?

A. 57
B. 58
C. 74
D. 114
A solution with a hydrogen ion concentration of \(1 \times 10^{-7}\) would be classified as ...

A. acid  
B. base  
C. neutral  
D. alkali
Solid objects become positively charged by...

A. losing protons
B. gaining protons
C. losing electrons
D. gaining electrons
Any extreme misfortune that brings great loss and sorrow is considered a...

A. Calamity
B. Climax
C. Commotion
D. Conversion
Scuba, a word formed from the first letters of Self-Contained Underwater Breathing Apparatus, is an example of...

A. An antonym
B. A synonym
C. An acronym
D. A pseudonym
A happy couple wandered aimlessly across the meadow. The couple was...

A. Foraging
B. Interloping
C. Meandering
D. Trespassing
Neither of the Smith brothers expect to be drafted by a major league team this year.

A. Correct
B. expects to be drafted
C. has expected to be drafted
D. is expecting to be drafted
San Francisco **lays southwest** of Sacramento.

A. correct
B. has laid southwest
C. is lying southwest
D. laid southwest
To no one's surprise, Joe didn't have his homework ready.

A. correct
B. no-one's surprise
C. no ones' surprise
D. no one's surprise
The Diary of Anne Frank showed a young girl’s courage during two years of hiding.

A. correct
B. shows a young girl’s courage
C. has shown a young girl’s courage
D. did show a young girl’s courage
On November 19, 1929 Admiral Richard E. Byrd flew the Floyd Bennett to the base of the Queen Maud Mountains.

A. On November 19, 1929 Admiral Richard E. Byrd flew the Floyd Bennett to the base, of the Queen Maud Mountains.

B. On November 19, 1929 Admiral Richard E. Byrd flew the Floyd Bennett to the base of the, Queen Maud Mountains.

C. On November 19, 1929, Admiral Richard E. Byrd flew the Floyd Bennett to the base of the Queen Maud Mountains.

D. No error
“Silent Night” was written by two men from the village of Oberndorf Austria.

A. “Silent Night” was written by two men, from the village of Oberndorf Austria.

B. “Silent Night,” was written by two men from the village of Oberndorf Austria.

C. “Silent Night” was written by two men from the village of Oberndorf, Austria.

D. No Error
The badger, a shy animal sometimes makes friends with the coyote.

A. The badger, a shy animal sometimes, makes friends with the coyote.
B. The badger, a shy animal sometimes makes friends, with the coyote.
C. The badger, a shy animal, sometimes makes friends with the coyote.
D. No Error
Identify the simple subject in the following sentence;

Mastering basic mathematics is an important goal for younger students.

A. mastering
B. goal
C. mathematics
D. students
Identify the simple subject in the following sentence:

The works of many great poets have been placed on reserve.

A. Many
B. Works
C. Poets
D. Reserve
Identify the verb in the following sentence;

In the early years of California history, those who traveled across the desert found it barren, lifeless, and downright hostile.

A. traveled  
B. hostile  
C. across  
D. found
She took umbrage at the newspaper article about her. She felt...

A. delighted
B. offended
C. flattered
D. surprised
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