

The rate constant for this first-order reaction is 0.460 s^{-1} at $400 \text{ }^\circ\text{C}$. A ? products How long, in seconds, would it take for the concentration of A to decrease from 0.680 M to 0.370 M ?

Answer:

1.32 seconds would take for the concentration of A to decrease from 0.680 M to 0.370 M .

Explanation:

Using integrated rate law for first order kinetics as:

Where,

is the concentration at time t

is the initial concentration

Given that:

The rate constant, $k = \text{s}^{-1}$

Initial concentration = 0.680 M

Final concentration = 0.370 M

Time = ?

Applying in the above equation, we get that:-

1.32 seconds would take for the concentration of A to decrease from 0.680 M to 0.370 M.

The diameter of the base of the cone measures 8 units. The height measures 6 units. What is the volume of the cone?

The plural form of fungus, fungi, has been anglicized. True or False

Wilma has been experiencing memory difficulties, and her doctor is concerned that Wilma may have a brain tumor. He recommends a(n) _____ to confirm his diagnosis.

Brandon does not believe he is prejudiced. However, he got very nervous when told he was randomly assigned to room with a man from Costa Rica for his first year in college. He plans to spend as little time as possible in his room because of this reason. Brandon is probably experiencing which of the following?

A hollow metal sphere is electrically neutral (no excess charge). A small amount of negative charge is suddenly placed at one point P on this metal sphere. If we check on this excess negative charge a few seconds later we will find one of the following possibilities: a. All of the excess charge remains right around P. b. The excess charge has distributed itself evenly over the outside surface of the sphere. c. The excess charge is evenly distributed over the inside and outside surface. d. Most of the charge is still at point P, but some will have spread over the sphere. e. There will be no excess charge left.

You must pay the government a 7.65% tax on whatever you are paying your employees. If you pay an employee \$ 150,000 in one year, what is the amount of tax you will have to pay for that one employee?

Atoms react with one another and form chemical bonds in order to _____ the outermost shell of electrons.

Twelve people shared a giant submarine sandwich during a party. The sandwich cost \$33.00. What was the cost per person?

Under British rule, the king and Parliament of Great Britain controlled the colonies. A hierarchical system divided the population into distinct social classes.

Which phrase from the Declaration of Independence attempted to change this practice in the United States?

Oil found in Texas is an example of A. Human capital

B. A capital resource

C. A labor resource

D. An entrepreneur

Choose the most effective revision for the underlined part of the sentence. If no revision is necessary, choose "Leave it as is." Who should I say is calling?

A. Whose calling?

B. Should I say whom is calling?

C. Whom should I say is calling?

D. Leave it as is.

You are thinking about starting a new organization to design and deliver fashionable touchscreen accessories. But you want your company to be maximally creative. Which of the following organizational principles would help to make your company more innovative? Check all that apply. a. Specialists: make sure that all problems are handled by people who have a great expertise in that area

b. Freedom: the ability to choose which problems to work on and how to address them

c. Decentralization: letting everyone control their own work and having few layers of management

d. Contact with outsiders: employees regularly meet with people who are not part of the organization

What is $2(x + 3) + 6(8x - 3)$

I need help on my homework and the problem is $s=gt^2$ and to solve for g.

Macbeth explain to the hired murderers that they must keep his plan a secret because

Of 140 seventh-grade students, 15% earn the Presidential Physical Fitness Award. How many students earn the award?

Which of the following men is credited as the first English essayist? Francis Bacon Mark Twain Joseph Addison Richard Steele

What does k mean in numbers

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