

Show that the set of vectors $\{(4,1,3), (5,1,6), (6,0,2)\}$ does not span \mathbb{R}^3 , but that it does span the subspace of \mathbb{R}^3 consisting of all vectors lying in the plane with equation $x + 13y - 3z = 0$.

Answer:

The vectors does not span \mathbb{R}^3 and only span a subspace of \mathbb{R}^3 which satisfies $x+13y-3z=0$

Explanation:

The vectors are given as

Now if the vectors would span the , the rank of the consolidated matrix will be 3 if it is not 3 this indicates that the vectors does not span the .

So the matrix is given as

In order to calculate the rank, the matrix is reduced to the Row Echelon form as

As the Rank is given as number of non-zero rows in the Row echelon form which are 2 so the rank is 2.

Thus this indicates that the vectors does not span

Now for any vector the corresponding equation is formulated by using the combined matrix which is given as for any arbitrary vector and the coordinate as

Now converting the combined matrix as

From this it is seen that whatever the values of the coordinates does not effect the value of the plane with equation as

So it is verified that the subspace of R^3 such that it satisfies $x+13y-3z=0$ consists of all vectors.

How many stanzas does this poem have? Who will believe my verse in time to come,
If it were fill'd with your most high deserts?
Though yet, heaven knows, it is but as a tomb
Which hides your life and shows not half your parts
If I could write the beauty of your eyes
And in fresh numbers number all your graces,
The age to come would say 'This poet lies;
Such heavenly touches ne'er touch'd earthly faces.'
So should my papers yellow'd with their age
Be scorn'd like old men of less truth than tongue,
And your true rights be term'd a poet's rage
And stretched metre of an antique song:
But were some child of yours alive that time,
You should live twice; in it and in my rhyme.

A. 13

oooo

Simplify the ratio 16:12

The supreme court introduced a two-part test, known as the _____ test (or balancing test) to determine whether the government was violating an individual's "free exercise" of religion.

Round the answer to the nearest cent. The price of an item selling at 150% of its \$63 value is \$____.a0

No estoy segura de que el médico me _____ la receta hoy mismo. (dar)

sari has 3 times as many pencil eraser as sam. together they have 28 easers. how many eraser does sari have?

which term best describes the relationship between the United States and Soviet Union during the cold war?

Need Help with these questions ASAP!! Please help 1. What was Herbert Hoover's philosophy when it came to providing government aid to help struggling

Americans?

2. How was Hoover's concept of "rugged individualism" reflected in his economic policies?
3. How did Hoover's response to the Bonus Army demonstrations weaken his presidency?
4. Why were African Americans' struggles during the Great Depression particularly challenging?
5. How did the Scottsboro Boys trial reflect racial inequality and injustice in the 1930s?
6. What role did popular entertainment play during the Great Depression?
7. What factors led to the struggles of farmers during the Great Depression and the Dust Bowl?
8. How did voter perceptions about Hoover lead to his defeat in the 1932 presidential election?
9. What was the Smoot-Hawley Tariff and how did it reflect the attitude of protectionism?

Complete each statement. - guanine (G), cytosine (C) and thymine (T) are the four in DNA,

8. In DNA

always forms hydrogen bonds with guanine (G).

9. The sequence of_

carries the genetic information of an organism.

10. The process of

produces a new copy of an organism's genetic information which is passed on to a new cell.

11. The double-coiled shape of DNA is called a

During the Industrial Revolution, the workers that supplied labor in factories and mines were known as the Middle classIndustrial ClassLower ClassUrban working class .

Two or more characters conversing A. Monologue

B. Dialogue

C. Fluency

D. Argumentation

My best friend is struggling with depression she wants nothing more then for someone to love her for who she is if your capable of this then comment if your not then don't bother please!! I know this is for homework but my friend is more important then Brainly!!

The production possibilities curve may shift outward as a result of a(n) A. increase in worker training courses.

B. decrease in costs of production.

C.increase in short run aggregate supply.

D.decrease in short run aggregate supply.

E. increase in consumer spending.

Which animal uses its skin for respiration? A. pelican B. lion C. toad D. mackerel

Which former Arkansas governor was a primary candidate for president of the United States in 2008? a. Mike Huckabee

b. William Jefferson Clinton

c. Dale Bumpers

d. James “Jim Guy” Tucker

Describe how decisions made in Brazil’s past have affected the country’s present population.

Three contributions to democracy from the Greco Roman era

What is it called when the amount of the moons lighted surface seen on earth increases

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