The steps in writing $f(x) = 18x + 3x^2$ in vertex form are shown, but a value is missing in the last step.

Write the function in standard form.

$f(x) = 3x^2 + 18x$
Factor a out of the first two terms. $f(x) = 3(x^2 + 6x)$
Form a perfect square trinomial.

$f(x) = 3(x^2 + 6x + 9) - 3(9)$

Write the trinomial as a binomial squared. $f(x) = 3(x + _____)^2 - 27$

What is the missing value in the last step?

Answer:
The missing value in last step is 3

Step-by-step explanation:

Given the function f(x)

Here some steps are given to write the above function in vertex form.

Step 1: Factor a out of the first two terms

Step 2: Form a perfect square trinomial.

Write the trinomial as a binomial squared.

By the identity of binomial square

Hence, the f(x) can be written as

Therefore, the missing value in last step is 3

3 is the missing value

Of there is any more help needed I can give you more tips and notes

The slope of a line is 2. The y-intercept of the line is –6. Which statements accurately describe how to graph the function?

How does the genetic code get to a ribosomes?

What are the five documents of the US Constitution? HELP ME PLEASE

African Americans usually could attend school if they wanted to in the South.  
a. True  
b. False

At a local pizza place, the cost of a large cheese pizza is $13.99. Each additional topping is $1.25. You order a large pizza, and it cost $16.49. Describe the pizza
you ordered. (Terrible at math rip)
A seven-year medical research study reported that women whose mothers took the drug DES during pregnancy were twice as likely to develop tissue abnormalities that might lead to cancer as were women whose mothers did not take the drug. This study compared two populations. What were the populations?
Which of the following is a solution to the equation y = 3x - 1? A. (4, 1)
B. (2, 5)
C. (4, 3)
D. (0, -3)

2. Which equation matches the statement "The sum of -4x and 2 is 9"?
A. -4x + 2 = 9
B. -4x + 9 = 2
C. -4x(2) = 9
D. -4x - 2 = 9

3. Solve x - 6 = -18
A. X = -24
B. X = -12
C. X = 12
D. X = 6

4. Solve 4x + 3 = 47
A. X = 11
B. X = 40
C. X = 44
D. X = 50

What was the Proclamation of 1763? A. a papal bull dividing territory in the New England colonies to settle disputes between England and France
B. a decree promising to appease all colonial powers once they agreed to Christianize all native peoples
C. an imaginary line drawn on the Appalachian divide to settle land disputes between colonists and Native Americans
D. an agreement between northern and southern colonies to work together in any conflicts with England.

From 1690 to 1750, the English and ________ in North America fought a series of almost nonstop wars that dealt mainly with the balance of power in Europe.
A. the Spanish  
B. the Portuguese  
C. the Germans  
D. the French

After the French and Indian War, the English saw the American colonists as  
A. very accommodating people.  
B. very distrustful people.  
C. very brave people.  
D. very ungrateful people.

The old policy of _________, which meant that England would govern its colonies as little as possible as long as they turned a profit, was discontinued after the French and Indian War.  
A. profit forgiveness  
B. salutary profit  
C. quid pro quo  
D. salutary neglect

What is 2000000 as a fraction

What is the original source of almost all the energy in most ecosystems? water sunlight carbohydrates carbon?

What part the Marshall plan played in worsening relations between the USA and the USSR

Identify the domain of the exponential function shown in the following graph: A curve runs just above the x axis through the second quadrant, passes through point 0 comma 1 and continues off screen near 1 comma 12.

True or false: person vs. Self is an example of external conflict.

'India has a federal government but the tilt is towards the centre.' Do you agree with this statement? Give any two examples to support your answer.

Does H? have a coefficient?

Why did so many cities grow along major rivers

Corey bought 2 1/2 liters of paint for $60.  
What was the cost per liter of paint?

The diameter of a sphere is 12 inches. What is the appropriate surface area, in square inches, of the sphere if Surface Area = 4πr²?