



Hustle Algebra Mu Alpha Theta 2006

Write the solution set for $|5 - 3x| \le 37$.

1

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Answer:		Answer:
	1	



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statement?

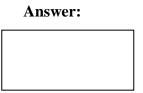
#2

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2

What property is illustrated by the following statement?

Given a, b, and c are real numbers, if a = b, then a + c = b + c.





Answer:

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2

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#3

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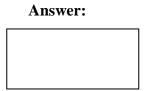
Given the ordered pairs (-4, 9) and (1, -3).

Let D = the distance between the ordered pairs.

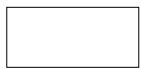
Let X = the x-coordinate of the midpoint of the ordered pairs.

Let Y = the y-coordinate of the midpoint of the ordered pairs.

Find
$$D + X + Y$$









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#3

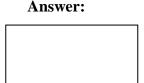
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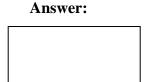
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#4

Find the equation of the line that passes through the point (-2, 6) and is perpendicular to the line 3x - 2y = 8. Write the equation in the form Ax + By = C.

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Answer:	Answer:





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5

Solve for x.
$$\frac{2x-5}{x-9} - \frac{x-3}{3x+2} = \frac{5}{3x^2-25x-18}$$

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Answer:





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Answer:







#6

Factor completely. $x^2 + 8x + 16 - 4y^2$

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#6

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Answer:





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#7

Dana's parents bought her a car in 2006 for \$12,000. In 2002, the same car was worth \$22,000. Assuming the car depreciates linearly, how much will the car be worth in 2009?

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Answer:	Answer:
Hustle Algebra Mu Alpha Theta 2006	Hustle Algebra Mu Alpha Theta 2006
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Answer:	Answer:





#8

Find the determinant. $\begin{vmatrix} 3 & -2 \\ -1 & 3 \end{vmatrix}$

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No.

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Answer:







#9

Find $_{7}P_{2} + _{7}C_{2}$

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Answer:





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#9

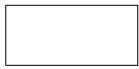
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#9

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$$_{7}P_{2} + _{7}C_{2}$$

Answer:

		- 1
		- 1
		- 1
		- 1
		- 1
		- 1







10

Given
$$f(x) = x^2 - 7$$
 and $g(x) = 2x + 3$, find $(f \circ g^{-1})(9)$.

10

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Answer:

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Answer:

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Answer:





11

Solve for p.
$$4^{3p-1} > \frac{1}{256}$$

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Answer:

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Answer:

No.

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Answer:





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12

Write the equation in $y = a(x - h)^2 + k$ form of the parabola with vertex located at (-2, 7) and which passes through the point (-5, 2).

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Answer:		Answer:		
	1			





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13

Write the equation of the quadratic function which contains the ordered pairs (0,0), (-1,7), and (6,42).

Write your answer in the form $y = ax^2 + bx + c$.

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14

They're growing bacteria in Mrs. Traylor's Biology class! The number of bacteria per square millimeter in a culture is increasingly exponentially with time. On Monday, there are 2000 bacteria per square millimeter. On Wednesday, the number has increased to 4500. Find the particular equation which describes the bacteria growth.

Answer:			
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Answer:	



15

Find the coordinates of the removable discontinuity for the algebraic function

$$f(x) = \frac{x^2 - 4x + 3}{x^2 - x - 6}.$$





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15

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Answer:



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Answer:

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15

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16

Simplify.
$$\frac{x^{-4} - y^{-4}}{x^{-2} + y^{-2}}$$



#16

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$$\frac{x^{-4} - y^{-4}}{x^{-2} + y^{-2}}$$

Answer:

Answer:





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16

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16

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Answer:

l		





17

Write in simple radical form. $\frac{5}{\sqrt[4]{25}}$

17

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Answer:

Answer:



No.

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17

Write in simple radical form. $\frac{5}{\sqrt[3]{25}}$

#17

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Answer:

i			





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<u> </u>	
# 18	# 18
Given the notation [] denotes the greatest integer function. The type of graph defined by y = [x] is a graph.	Given the notation [] denotes the greatest integer function. The type of graph defined by y = [x] is a graph.
	Answer:
Answer:	
Hustle Algebra Mu Alpha Theta 2006	Hustle Algebra Mu Alpha Theta 2006
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Answer:	Answer:





19

Let
$$A = (3 + i)^2$$

Let $B = (3 - i)(3 + i)$
Let $C = |3 - 4i|$

Find A + B + C

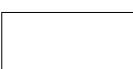
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Answei	r	



Answer:





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#19

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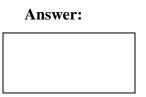




20

Find the 51st term of the sequence:

2, 5, 8, 11, 14, ...





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Answer:	



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#20

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Answer:

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21

Six Algebra students are lined up for a fire drill. How many arrangements are there for these students if Won-il and Cicy, two of the students, must be next to each other?

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Hustle Algebra Mu Alpha Theta 2006 Mu	Hustle Algebra 1 Alpha Theta 2006
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Answer:	Answer:





22

Evaluate. $\sqrt{6+\sqrt{6+\sqrt{6+\sqrt{6+\dots}}}}$

#22

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Answer:

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Answer:





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22

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22

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Answer:







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23

Write an equation in the form $\frac{(x-h)^2}{a^2} + \frac{(y-k)^2}{b^2} = 1$ for the ellipse whose endpoints for the major axis are at (-11, 5) and (7, 5) and endpoints for the minor axis are at (-2,9) and (-2, 1).

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23

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answer:	Answer:		





24

Evaluate:
$$\sum_{m=10}^{20} (30 - m)$$

24

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Answer:

1		
1		
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Answer:



No.

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24

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24

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$$\sum_{m=10}^{20} (30 - m)$$

Answer:

1	
1	
1	





25

Find
$$A^{-1}$$
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Answer:

Answer:



Dir.

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#25

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