Hustle
Algebra
Mu Alpha Theta 2006

 # 1

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

Answer:

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Answer:

 # 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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Given a, b, and c are real numbers,
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Answer:

 # 3

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

Answer:

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Answer:

 # 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.

Answer:

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Algebra
Mu Alpha Theta 2006

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Answer:

 # 5

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

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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Hustle
Algebra
Mu Alpha Theta 2006

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Hustle
Algebra
Mu Alpha Theta 2006

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Answer:

 # 6

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

Answer:

Hustle
Algebra
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#6

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 6

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 6

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

Answer:

 # 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?

Answer:

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Answer:

 # 8

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

Answer:

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Hustle
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Answer:

 # 9

Find ${}_7P_2 + {}_7C_2$

Answer:

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Find ${}_7P_2 + {}_7C_2$

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Hustle
Algebra
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Hustle
Algebra
Mu Alpha Theta 2006

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Find ${}_7P_2 + {}_7C_2$

Answer:

Hustle
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 # 10

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

Answer:

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

Answer:

 # 11

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

Answer:

Hustle
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#11

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

Answer:

Hustle
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Algebra
Mu Alpha Theta 2006

 # 11

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 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).

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

#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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Hustle
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Hustle
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Answer:

 # 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 $y = ax^2 + bx + c$.

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

#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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Hustle
Algebra
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Answer:

 # 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:

Hustle
Algebra
Mu Alpha Theta 2006

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Hustle
Algebra
Mu Alpha Theta 2006

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Algebra
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Answer:

Hustle
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 # 15

Find the coordinates of the removable discontinuity for the algebraic function

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

Answer:

Hustle
Algebra
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 # 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

Find the coordinates of the removable discontinuity for the algebraic function

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 15

Find the coordinates of the removable discontinuity for the algebraic function

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

Answer:

 # 16

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

Answer:

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#16

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 16

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 16

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

Answer:

 # 17

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

Answer:

Hustle
Algebra
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 # 17

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 17

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

#17

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 18

Given the notation [ ] denotes the greatest integer function.
The type of graph defined by y = $[x]$ is a ____________ graph.

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

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Given the notation [ ] denotes the greatest integer function.
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Answer:

 # 19

Let A = $(3 + i)^2$
Let B = $(3 – i)(3 + i)$
Let C = $\left| 3 - 4i \right|$

Find A + B + C

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

#19

Let A = $(3 + i)^2$
Let B = $(3 – i)(3 + i)$
Let C = $\left| 3 - 4i \right|$

Find A + B + C

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

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Let A = $(3 + i)^2$
Let B = $(3 – i)(3 + i)$
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Find A + B + C

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

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Let A = $(3 + i)^2$
Let B = $(3 – i)(3 + i)$
Let C = $\left| 3 - 4i \right|$

Find A + B + C

Answer:

 # 20

Find the 51st term of the sequence:

2, 5, 8, 11, 14, …

Answer:

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Hustle
Algebra
Mu Alpha Theta 2006

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Answer:

 # 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?

Answer:

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#21

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Answer:

Hustle
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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?

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?

Answer:

 # 22

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

Answer:

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#22

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

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Answer:

Hustle
Algebra
Mu Alpha Theta 2006

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

Answer:

 # 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).

Answer:

Hustle
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Answer:

 # 24

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

Answer:

Hustle
Algebra
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 # 24

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Answer:

Hustle
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Mu Alpha Theta 2006

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Answer:

Hustle
Algebra
Mu Alpha Theta 2006

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

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

 # 25

Find A^{-1} if $A = \begin{bmatrix} 4 & -2 \\ -6 & 3 \end{bmatrix}$

Answer:

Hustle
Algebra
Mu Alpha Theta 2006

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Answer: