Rules for Jeopardy

1. You will have 40 Minutes to solve as many problems as possible.
2. Once you have answered EACH question, you will come up to Mr. Doucette and he will identify whether you have a correct or incorrect solution. If the solution is correct, you will earn the dollar value on the Question.
3. Each questions Dollar value is based on the difficulty of the problem. More difficult problems are worth $500, easier questions $100.
4. At the end of the 40 minutes points will be tallied. Then we will go the final Jeopardy period, where you can wager the points you earned, on a final question.

- **Important Rules:**
- **YOU MUST ANSWER AT LEAST 1 QUESTION FROM EACH CATEGORY.**
- **YOU MUST ANSWER AT LEAST 2 $500 Questions.**

Jeopardy

Operations Of Functions	Inverses	Compositions	Properties Of Radicals	Graphing
Q $100	Q $100	Q $100	Q $100	Q $100
Q $200	Q $200	Q $200	Q $200	Q $200
Q $300	Q $300	Q $300	Q $300	Q $300
Q $400	Q $400	Q $400	Q $400	Q $400
Q $500	Q $500	Q $500	Q $500	Q $500

Final Jeopardy

$100 Question from *Operations of Functions*

Find $f(x) - g(x)$

for $f(x) = -3x^2 + 4x - 1$
$g(x) = x^2 - x + 8$

Jeopardy

$200 Question from *Operations of Functions*

$$\textbf{Find } f(x) + g(x)$$
$$\text{for } f(x) = -3x^2 + 4x - 1$$
$$g(x) = x^2 - x + 8$$

Jeopardy

$300 Question from *Operations of Functions*

$f(x) = -3x^3 + 5x^2$

$g(x) = 2x - 2$

Find $f(x) + g(x)$

Jeopardy

$400 Question from *Operations of Functions*

$$f(x) = x + 2$$
$$g(x) = 2x^2 - 1 + 2x$$
Find $f(x) - g(x)$

Jeopardy

$500 Question from *Operations of Functions*

$f(x) = 4x + 3$

$g(x) = 4x + 2$

Find $f(-10) + g(-10)$

Jeopardy

$100 Question from *Inverses*

Find the inverse of each function.

$$f(x) = \sqrt[3]{x-1}$$

Jeopardy

$200 Question from *Inverses*

Find the inverse of each function.

$$g(x) = (x - 1)^3 + 3$$

Jeopardy

$300 Question from *Inverses*

State whether the given functions are inverses.

$$f(n) = n - 2$$

$$g(n) = \frac{6 + n}{3}$$

Jeopardy

$400 Question from *Inverses*

Find the inverse of each function.

$$g(x) = \sqrt[5]{\frac{x+3}{2}}$$

Jeopardy

$500 Question from *Inverses*

State whether the given functions are inverses

$$g(x) = 1 - x^3$$
$$f(x) = 2 + (x-2)^5$$

Jeopardy

$100 Question from *Compositions*

Given $f(x) = -2x - 7$ and $g(x) = -x^2 + 5$, find $f(g(1))$

Jeopardy

$200 Question from *Compositions*

Given $f(x) = -2x - 7$ and $g(x) = -x^2 + 5$, $g(f(1))$.

Jeopardy

$300 Question from *Compositions*

$$f(n) = -2n + 1$$

Find $f(f(-4))$

Jeopardy

$400 Question from *Compositions*

$$g(a) = 4a$$
$$h(a) = 3a + 4$$
Find $g(h(4))$

Jeopardy

$500 Question from *Compositions*

$g(x) = 4x + 1$
$h(x) = -2x - 5$
Find $g(h(x))$

Jeopardy

$100 Question from *Properties of Radicals*

Simplify

$-8\sqrt{12p^3q^2r^4}$

Jeopardy

$200 Question from *Properties of Radicals*

Simplify

$-4\sqrt[4]{486n^2}$

Jeopardy

$300 Question from *Properties of Radicals*

Simplify: $\sqrt{4x^7y^5} + 9x^2\sqrt{x^3y^5} - 5xy\sqrt{x^5y^3}$

Jeopardy

$400 Question from *Properties of Radicals*

Simplify

$$\sqrt[4]{128a^{12}b^{17}}$$

Jeopardy

$500 Question from *Properties of Radicals*

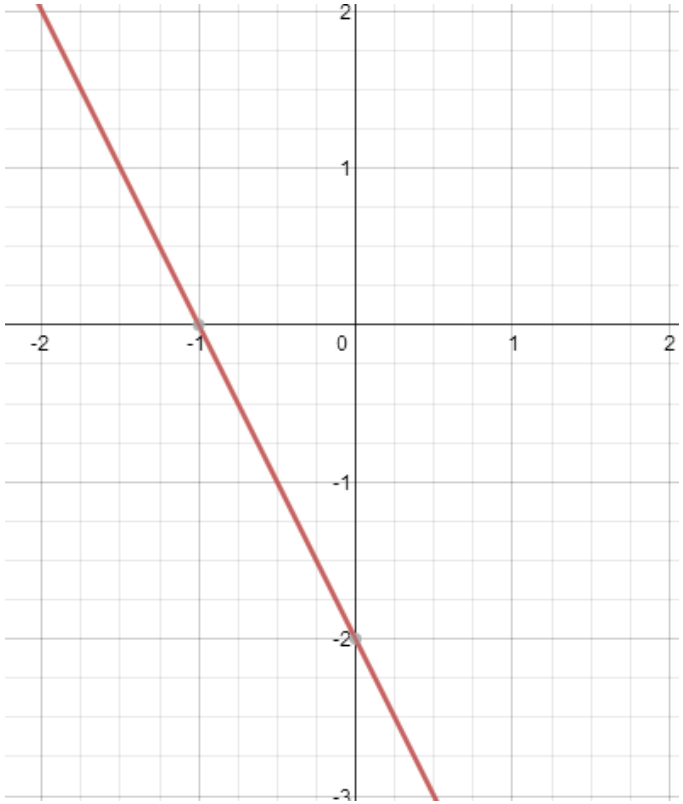
Simplify

$$\sqrt[3]{128r^6s^2}$$

Jeopardy

$100 Question from *Graphing and Solving*

- **Write the inverse function of the graphed line.**



Jeopardy

$200 Question from *Graphing and Solving*

Solve $\sqrt{x+4} = 3$

Jeopardy

$300 Question from *Graphing and Solving*

Solve $\sqrt[3]{\frac{x}{4}} = 5$

Jeopardy

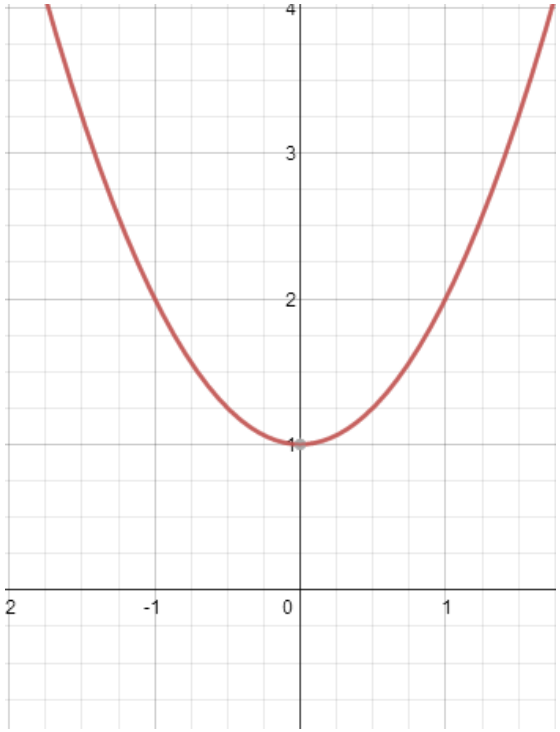
$400 Question from *Graphing and Solving*

Solve: $\sqrt{5x+9}-10=12$

Jeopardy

$500 Question from *Graphing and Solving*

- **Write the inverse function of the graphed quadratic.**



Jeopardy

Final Jeopardy

Jeopardy

$100 Answer from Operations of Functions

Jeopardy

$200 Answer from Operations of Functions

Jeopardy

$300 Answer from Operations of Functions

Jeopardy

$400 Answer from Operations of Functions

Jeopardy

$500 Answer from Operations of Functions

Jeopardy

$100 Answer from Inverses

Jeopardy

$200 Answer from Inverses

Jeopardy

$300 Answer from Inverses

Jeopardy

$400 Answer from Inverses

Jeopardy

$500 Answer from Inverses

Jeopardy

$100 Answer from Compositions

Jeopardy

$200 Answer from Compositions

Jeopardy

$300 Answer from Compositions

Jeopardy

$400 Answer from Compositions

Jeopardy

$500 Answer from Compositions

Jeopardy

$100 Answer from Properties of Radicals

Jeopardy

$200 Answer from Properties of Radicals

Jeopardy

$300 Answer from Properties of Radicals

Jeopardy

$400 Answer from Properties of Radicals

Jeopardy

$500 Answer from Properties of Radicals

Jeopardy

$100 Answer from Graphing

Jeopardy

$200 Answer from Graphing

Jeopardy

$300 Answer from Graphing

Jeopardy

$400 Answer from Graphing

Jeopardy

$500 Answer from Graphing

Jeopardy

Final Jeopardy Answer

Jeopardy