Math 115E Exam 2 Review

Jeoparty Planner

Activity 10 through Activity 17
LINK: `https://jeopardylabs.com/play/chapters-4-5-jeopardy-3`
PASSWORD: : Math115

- Star graph, slope from 2 points

- Star graph (blank), equation from 2 points, find value

- Point slope form, slope intercept form, inequalities

- Finding two numbers puzzle ($a = 1, a \neq 1$)

- Standard form, vertex form, xy inters, vertex, min/max, factoring (a=1)

- Factoring when $a = 1$ vs $a = \neq 1$

- Copied, quadratic formula

- wrap up, adding domain range, rectangle area puzzle

Slope Stuffs

$100 : Find the slope between the points $(1, 4)$ and $(5, 20) \to 4$

$200 : Find the equation between the points $(3, -5)$ and $(1, -1) \to y = -2x + 1$

$300 : What y value gives us a slope of 3 from $(1, 2)$ and $(2, y) \to y = 5$

$400 : What is the value of the slope for the line $y = -4$

$500 : What is the slope of the line $x = 10$

Quadratics ($a = 1$)

$100 : Factor $x^2 + 2x + 1 \to (x + 1)(x + 1)$

$200 : Factor $x^2 - 4x - 21 \to (x - 7)(x + 3)$

$300 : Does $x^2 + 16x + 48 = (x + 12)(x + 4)$?

$400 : Can $x^2 - 9x - 24$ be factored from the methods we learned? NO

$500 : Factor $x^2 + 12x - 45 \to (x + 15)(x - 3)$

Quadratics ($a \neq 1$)

$100 : Factor $2x^2 + 5x + 3 \to (x + 1)(2x + 3)$

$200 : Find the solutions to $2x^2 - 6x - 20 = 0$ with any method

$300 : Can $5x^2 + 12x - 4$ be factored from the methods we learned? NO

$400 : Find the solutions to $6x^2 - 11x + 3 = 0$ with any method

$500 : Find the solutions to $(x - 2)(x + 4) = -5$ with any method

Properties

$100 : What is the vertex of $-3x^2 + 2x + 6 \rightarrow (1/3, 19/3)$

$200 : TRUE OR FALSE: The vertex alone tells us if that point is a max or min for a quadratic function. FALSE, need a

$300 : What is the range for $x^2 + 1 \rightarrow (1, \infty)$

$400 : What are the x-intercepts of $x^2 - 2x - 1 \rightarrow (1 \pm \sqrt{2}, 0)$

$500 : How many real x-intercepts does $y = 2x^2 - 4x + 3$ have? $\rightarrow$ None

Class Facts

$100 : What were the days and times of my office hours?

$200 : What are you ALLOWED to bring to the exam?

$300 : What hit Bonnie's head before the first day of class?

$400 : What is my full name? :)

$500 :