Starter #5 Domain and Range

Calendar Math

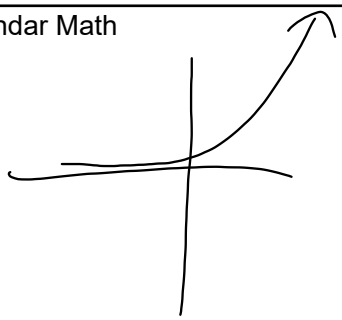
3.1 Part 1 Homework Questions

3.2 Part 2 Domain/Range, X/Y Intercepts, Max/Min

Objective: Show and understanding of finding domain/range, x/y intercepts, and max/min by completing the exit ticket and a 3 out of 5 on the 3.1 quiz next class period.

Oct 11-5:11 PM

Calendar Math



Oct 11-5:15 PM

Homework Questions

20

$\frac{195}{5} = \frac{5y}{5}$

$\mathbb{R}$ #s (can be a fraction)

$\mathbb{Z}$ integers (cannot be fraction)

$y = 39$

D: [0, 195] $X = 195$ $\{x \in \mathbb{Z} \mid x \leq 195\}$

R: [0, 39] $\{y \in \mathbb{Z} \mid 0 \leq y \leq 39\}$

Oct 11-5:15 PM

25

Revenue $ →

← $ cost

$r(x) - c(x)$

$-.04x^2 + 60x + 85 - (.22x + 25)$

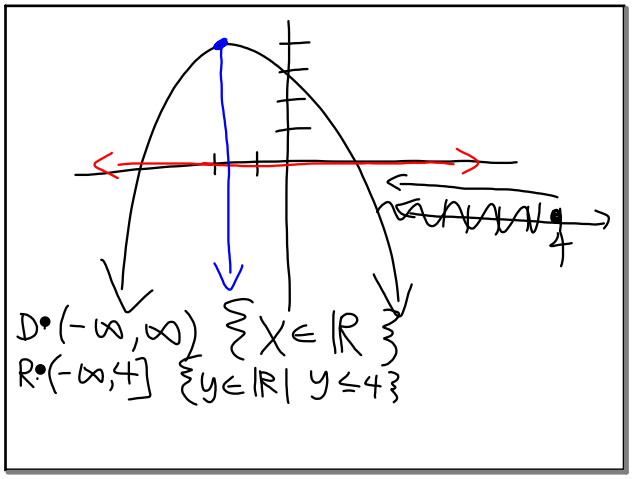
$-.04x^2 + 59.78x + 60$ $-.22x - 25$

Oct 12-10:06 AM

Video

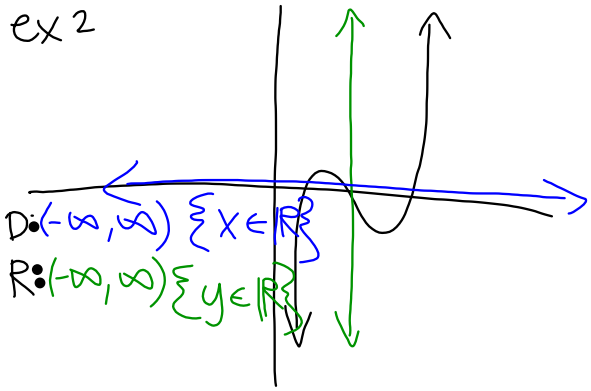
https://www.youtube.com/watch?v=RGnv3e_48Oc

Oct 10-1:27 PM



Oct 12-9:52 AM

ex 2



Oct 12-9:55 AM

3.1 Part 2 Domain/Range, X/Y intercepts, Maximum and Minimum

Domain and Range

Oct 11-5:15 PM

X and Y intercepts

where it crosses the axis x & y

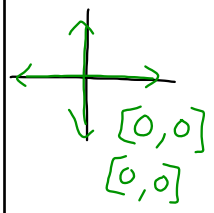
x-intercept: point that crosses the x-axis and $y = 0$

y-intercept: point that crosses the y-axis and $x = 0$

Oct 11-5:16 PM

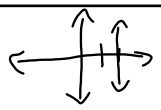
x-int: [4, 0] (x, y)

y-int: [0, 2]



Oct 12-10:22 AM

ex 2



x: 2, 0

y: one

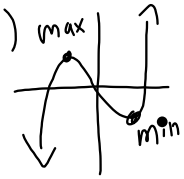
X: $[-5, 0] \cup [2, 0]$ ∪ and

y: $[0, 3]$

Oct 12-10:25 AM

Maximum and Minimum

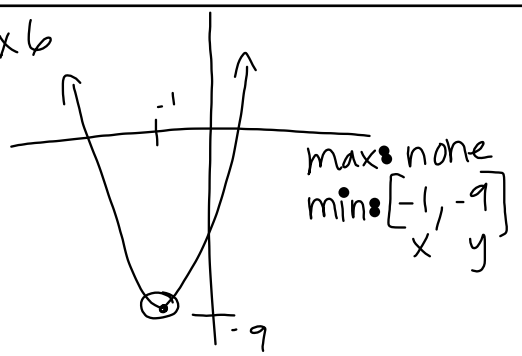
maximum: highest point (mountain)



minimum: lowest point (valley)

Oct 11-5:16 PM

ex 6



max: none
min: [-1, -9]
x y

Oct 12-10:29 AM

ex 7

max: [2, 4]
min: none

Oct 12-10:32 AM

Bunny Rabbit Population Problem:

The observed bunny rabbit population on an island is given by the function below, where ***t*** is the time in months since they began observing the rabbits. (a) When is the maximum population attained, (b) what is the maximum population, and (c) when does the bunny rabbit population disappear from the island?

$p = -.4t^2 + 130t + 1200$

Oct 9-2:46 PM