WARM UP

skip #4 and #5

If you fall, I'll be there.

- Floor

Missing Ch 3 Test
CONNOR
Auree

Ch 4 HW Packet
Kelly
Nathan
Josh L
CONNOR
Auree

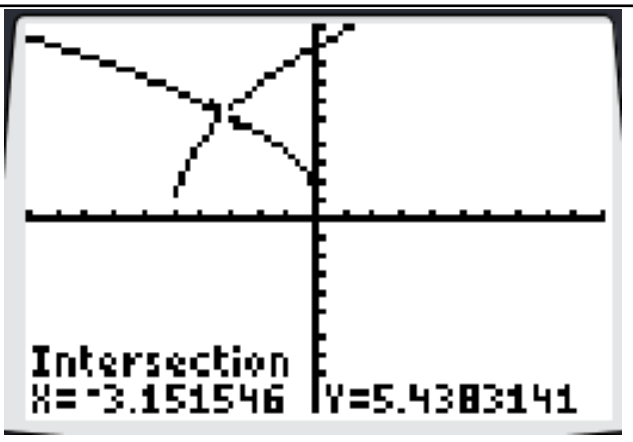
Ethan H
Alex R
Kiran S

Athena
Ethan H
Alex R
Natalie R
Kiran

HW Tally

① Solve Graphically (Hint: Use GDC)

$$4\sqrt{x+5} = 2^x + 3\sqrt{-x}$$



$x \approx -3.15$

(2) Solve for N

4. $M = \frac{1}{4}(M+N) \cdot 4$

$4M = M+N$

$-M \quad -M$

$3M = N$

$N = 3M$

$t = \frac{2+x}{2/3}$

(3) Show an algebraic check to see if $x = 2$ is a solution to the equation:

$5 - x + x^3 = 4^x + 1$

$5-(2)+2^3$ | 4^2+1

$5-2+8$ | $16+1$

$3+8$

$11 \neq 17$

So $x=2$ is not a solution

④ Solve $|x| = 6$

⑤ Solve $2|x-3| = 10$

⑥ Solve the inequality

$5|x+2| - 4 \leq 16$

$+4 \quad +4$

$5|x+2| \leq 20$

$|x+2| \leq 4$

$x+2 \leq 4$ and $x+2 \geq -4$

$-2 \quad -2 \quad -2 \quad -2$

$x \leq 2$ and $x \geq -6$

$-6 \leq x \leq 2$

HW Questions ?

You'll See the solutions Monday

HW
Lottery

Aim: Use two methods to solve an equation graphically.

- Including the use of x-intercepts

Get your GDC ready:

1. Solve $-2\sqrt{x} = -5$ graphically. $x = 6.25$

$y = -2\sqrt{x}$ $y = -5$

2. Now add x to both sides and solve graphically again $x = 6.25$

$-2\sqrt{x} + x = -5 + x$

3. Lastly, set your equation equal to zero and solve graphically one last time. $x = 6.25$

$-2\sqrt{x} + 5 = 0$

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HW QUESTIONS

HW Questions ??

4-8 (b) $7\left(\sqrt{m+1}-3\right)=21$

(c) $\frac{x}{2}+\frac{x}{3}=\frac{5x+2}{6}$

$(0, 2)$ $(5, 2)$

$$m = \frac{2 - 2}{0 - 5}$$

$$= 0$$

AIM

Use two methods to solve an equation graphically.

including the use of x-intercepts

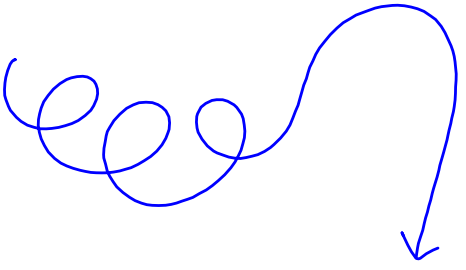
↑ NOTES

A or B

- Pencils/Pens/calculators down
- Discuss
  - **How many solutions do you predict the following equation to have ?**

$$2x^2 + 5x - 3 = x^2 + 4x + 3$$

RUNNER - WRITE YOUR Team's answer down and bring it to me.



4-18 b c d

"in the graph"

b) Solve algebraically

$2x^2 + 5x - 3 = x^2 + 4x + 3$

$-x^2 \quad -4x \quad -3 \qquad -x^2 \quad -4x \quad -3$

$x^2 + x - 6 = 0$

$x = -3$

$x = 2$

c) $y = x^2 + x - 6$

so Gustavo could look for x-intercepts

c) Where did Gustav get $y = x^2+x-6$???

$2x^2+5x-3 = x^2+4x+3$

d) How can you see the solutions to $2x^2+5x-3 = x^2+4x+3$ ← equation in the graph of $y = x^2+x-6$? ← function

by looking for the x-intercepts of $y = x^2+x-6$

d) How can you "see" the solutions to $2x^2 + 5x - 3 = x^2 + 4x + 3$ ← equation in the graph of $y = x^2 + x - 6$? ← function

by ... looking at the x-intercepts of $y = x^2 + x - 6$

Solutions to equations, are the same values as the x-intercepts of the function created when the equation is set equal to zero

Solutions to equations, are the same values
as the x-intercepts of
the function created
when the equation is set equal to zero

true for any type of an equation

every group needs a

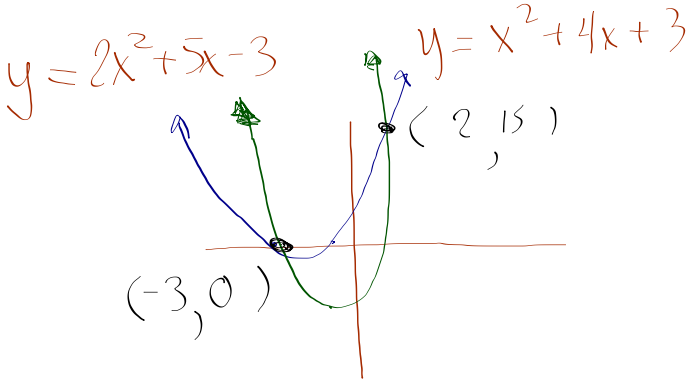
Dictator

now

part e

$2x^2 + 5x - 3 = x^2 + 4x + 3$

$x = 2$
$x = -3$



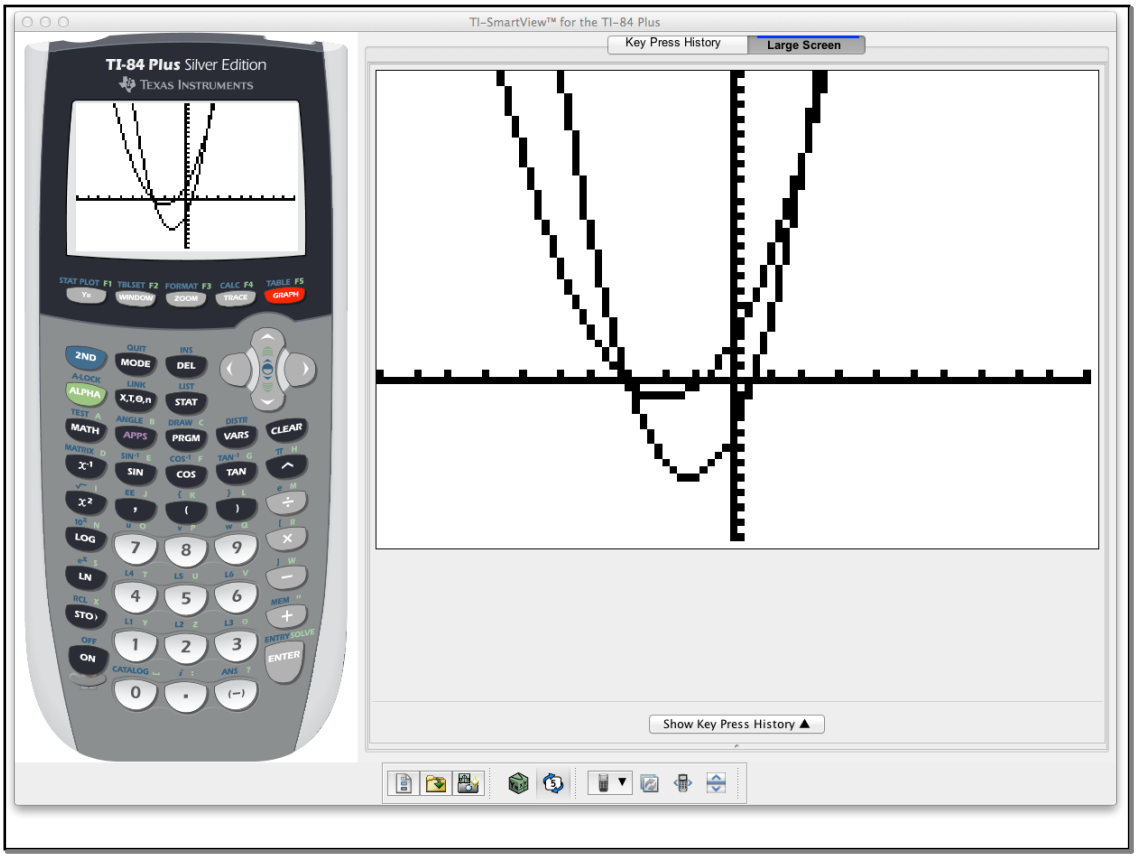
e) $2x^2 + 5x - 3 = x^2 + 4x + 3$

Maya solved the equation graphically by graphing the system of equations.

What system did she graph?

$y =$
$y =$

Where do the solutions exist on the graph?



Do parts A and B of

4 - 20

It can be done by just looking at your textbook. Do not use a calculator.

Dictator

- Get a consensus for answers.
  Be prepared to explain.

4-20. Jack was working on solving an equation and he graphed the functions $f(x) = \frac{12}{x}$ and $g(x) = -(x-3)^2 + 4$, as shown below.

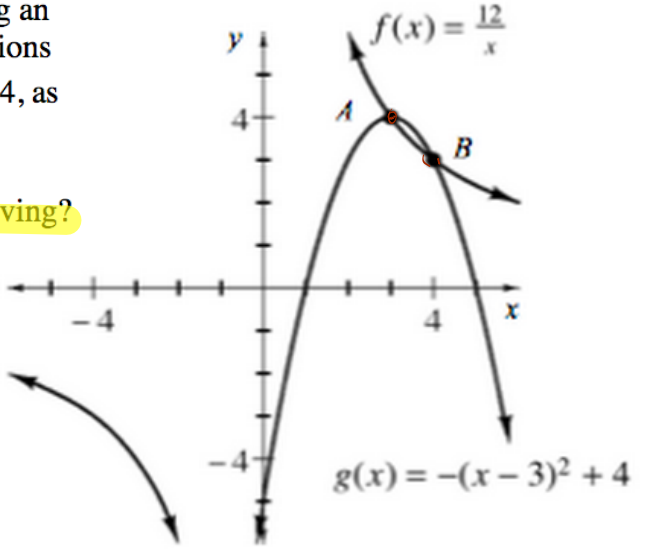
a. What equation was Jack solving?

$y = \frac{12}{x}$

$y = -(x-3)^2 + 4$

$\frac{12}{x} = -(x-3)^2 + 4$

$x = 3 \quad x = 4$



b. Use points A and B to solve the equation you wrote in part (a).

→ by just looking at the graph

$$\frac{12}{x} = -(x-3)^2 + 4$$

Exit Ticket + See your test

Assignment

4 – 29 to 32, 35a

Have an awesome weekend