Welcome Back MYP Math 9!

Self-assess:

	Assignment Effort Grade (Circle One)	Comments (What was interesting or challenging?)
Monday Date: 9/25 Topic: 19B: Substitution	0 1 2	I like substitution more than graphing!
Tuesday Date: _____ Topic: _____	0 1 2	
Wednesday Date: _____ Topic: _____	0 1 2	
Thursday Date: _____ Topic: _____	0 1 2	
Friday Date: _____ Topic: _____	0 1 2	

Class Plan

1. Mathematician Mondays!
2. Desmos!
3. Joke break :) Return devices!
4. Exit Ticket
5. Exercises, practice review

.

B Friday's Homework! SOLUTION BY SUBSTITUTION

#1 (choose 2), #2 (choose 2), #3 (choose 2), #4, #5

Exercises... 19B
Pages 377 - 378

EXERCISE 19B

1 Solve simultaneously by substitution:

a $\begin{cases} y = x - 3 \\ 2x + 3y = 26 \end{cases}$ b $\begin{cases} y = 3x - 2 \\ 5x - 2y = 5 \end{cases}$ c $\begin{cases} 7x + 4y = -7 \\ y = 8 - 5x \end{cases}$

d $\begin{cases} y = 2x - 12 \\ y = 13 - 3x \end{cases}$ e $\begin{cases} y = 3x + 4 \\ 5x + 3y = 5 \end{cases}$ f $\begin{cases} 5x - 6y = 2 \\ y = 3 - 7x \end{cases}$

$2x+3(x-3)=26$
$2x+3x-9=26$
$5x-9=26$
$+9 \quad +9$

$\frac{5x}{5} = \frac{35}{5}$

$x=7$

$y=7-3$

$y=4$

B Friday's Homework! SOLUTION BY SUBSTITUTION

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Exercises... 19B
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$(5, -2)$

$y=2x-12$
$y=13-3x$
$y=2(5)-12$
$y=10-12$
$y=-2$

$2x-12=13-3x$
$+12 \quad | \quad +12$
$2x=25-3x$
$+3x \quad | \quad +3x$
$\frac{5x}{5} = \frac{25}{5} \quad x=5$

Solve simultaneously by substitution:

ON

a $\begin{cases} y = \frac{1}{2}x - 2 \\ 3x - 8y = 11 \end{cases}$

b $\begin{cases} x = -\frac{2}{3}y \\ 6x + 7y = 6 \end{cases}$

c $\begin{cases} 5x - 12y = 18 \\ y = \frac{1}{4}x - 1 \end{cases}$

d $\begin{cases} y = -\frac{1}{2}x - 1 \\ 4x + 3y = -2 \end{cases}$

e $\begin{cases} 2x - 3y = 3 \\ x = \frac{11}{5}y + 2 \end{cases}$

f $\begin{cases} 14x + 15y = 25 \\ y = \frac{2}{5}x - 3 \end{cases}$

$5x - 12\left(\frac{1}{4}x - 1\right) = 18$

$5x - 3x + 12 = 18$

$2x + 12 = 18$

$-12 \quad -12$

$2x = 6$

$x = 3$

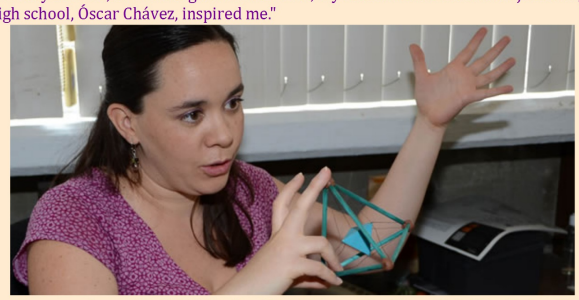
$y = \frac{1}{4}(3) - 1$

$y = \frac{3}{4} - 1$

$y = -\frac{1}{4}$

Dr. Isabel Alicia Hubard Escalera

As a child, Isabel Alicia Hubbard wanted to be a bullfighter. She has said of her family, "My mother is an engineer and my father an accountant. My brother wanted to become a mathematician and my sister a physicist. I never thought that I would like math. I simply found it easy and fun, but nothing more. However, my mathematics teacher in junior high and high school, Óscar Chávez, inspired me."



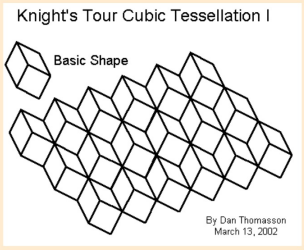
She was the organiser of the 2015 Mexico City Mathematics Olympiad of the Federal District, an organization that played a prominent role in recent national competitions, achieving the second place medal of the 2015 Olimpiada Nacional de Matemáticas para Alumnos de Primaria y Secundaria competition.[6] She is also a delegate for Mexico City in the Mexican Mathematics Olympiad of the Mexican Mathematics Society

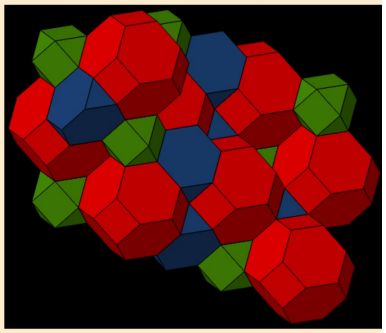
Dr. Isabel Alicia Hubard Escalera

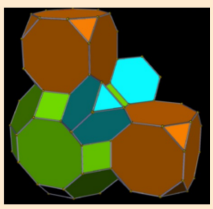
Hubard Escalera began her studies in the Faculty of Sciences of the UNAM, where in 2001, she graduated in Mathematics with a baccalaureate thesis titled *Polyhedra colored with cyclic orders*

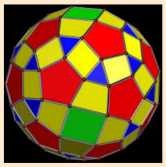
In 2008, she earned a Ph.D. from York University of Canada, with a dissertation titled *From geometry to groups and back: the study of highly symmetric polytopes*

In 2012 she was the first Mexican mathematician to receive the L´Oréal-UNESCO-AMC Fellowship in the area of Exact Sciences for her work, titled *Algebra, combinatorics and geometry of abstract two-orbit polytopes*.[2][5] The Fellowship is awarded to "promote the participation of women in science for advanced scientific studies in universities or other recognized Mexican institutions in the areas of exact sciences, natural sciences and engineering and technology."









1) Hey, students!

Go to student.desmos.com and type in:

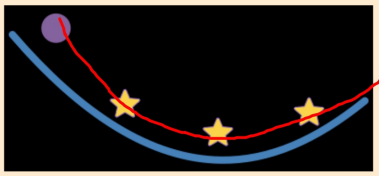
2HD8R

name?

Launch

Success!

2) Adjust your equation so marbles hit all stars



Joke Break :)

Mathematics of Life

Life + Love = Happy
Life – Love = Sad
2 Life = Happy + Sad

$\therefore$ Life = $\frac{\text{Happy + Sad}}{2}$

$\therefore$ Life = ½ Happy + ½ Sad

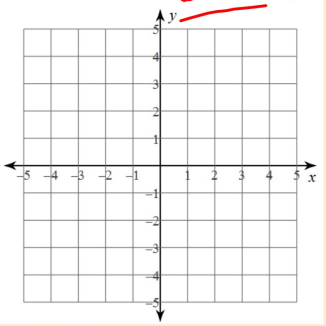
That's Real Life. Enjoy It.

Exit Ticket: Solve by graphing

$y = 2x + 4$

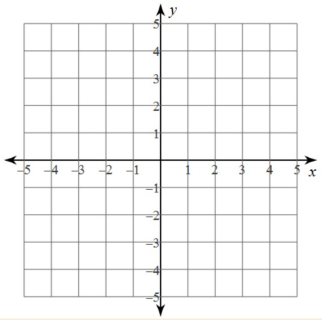
$y = -\frac{1}{3}x - 3$

Do your best!



$y = -2x - 2$

$y = \frac{1}{2}x + 3$

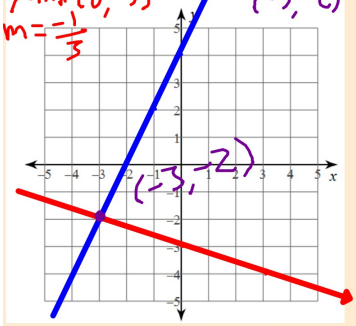


Exit Ticket: Solve by graphing
Solution

$y = 2x + 4$ y-int: (0,4); m = 2/1

$y = -\frac{1}{3}x - 3$ y-int: (0,-3); m = -1/3

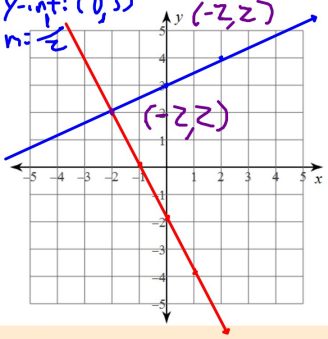
(-3,-2)



$y = -2x - 2$ y-int: (0,-2); m = -2/1

$y = \frac{1}{2}x + 3$ y-int: (0,3); m = 1/2

(-2,2)



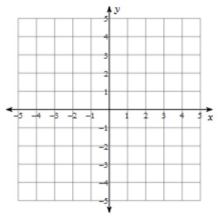
Exercises:

Systems of Equations Name_____ ID: 1

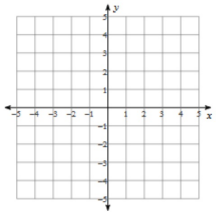
19A Graphing & 19B Substitution

Solve each system by graphing.

1) $y = -\frac{3}{2}x - 4$
$y = -\frac{1}{2}x - 2$



2) $y = 6x + 2$
$y = x - 3$



Exercises:

Solve each system by substitution.

3) $y = 2$
$y = -5x + 17$

Solve each system by substitution.

4) $y = 4x + 10$
$y = 8x + 18$

Solve each system by substitution.

5) $5x + 4y = -22$
$y = x - 1$

Exercise Solutions:

1) $(-2, -1)$ 2) $(-1, -4)$ 3) $(3, 2)$ 4) $(-2, 2)$
5) $(-2, -3)$