WHAT DO YOU CALL YOUR FRIENDS WHO LOVE MATH?? NAME_____

A	L	G	E	B	R	O	S
$(\frac{1}{4}, 0)$	$(1,4)$	$(1,-2)$	$\varnothing$	$\{(x,y) \mid x+5y=1\}$	$(-3,2)$	$(0,3)$	$(-2,3)$

L

$\begin{cases} y = x+3 \\ 5x+y=9 \end{cases}$ $\begin{cases} -x+y=3 \\ 5x+y=9 \end{cases}$ (mult. -1)

$\begin{cases} -x+y=3 \\ +(-5x+y=-9) \end{cases}$

$-6x = -6$

$x = 1$

$y = x+3$

$y = 1+3$

$y = 4$

$(1,4)$

E

$\begin{cases} 2y = -4x \\ 4x+2y=-11 \end{cases}$ $\begin{cases} 4x+2y=0 \\ 4x+2y=-11 \end{cases}$ (mult. -1)

$\begin{cases} 4x+2y=0 \\ +(-4x-2y=11) \end{cases}$

$0 = 11$

$\varnothing$

S

$\begin{cases} 5x+4y=2 \\ -5x-2y=4 \end{cases}$

$2y = 6$

$y = 3$

$5x+4(3)=2$

$5x+12=2$

$5x=-10$

$x=-2$

$(-2,3)$

O

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

$3x = 0$

$x = 0$

$y = 2x+3$

$y = 2(0)+3$

$y = 3$

$(0,3)$

G

$\begin{cases} 14x+2y=10 \\ x-5y=11 \end{cases}$ $(1,-2)$ (mult. -14)

$\begin{cases} 14x+2y=10 \\ +(-14x+70y=-154) \end{cases}$

$72y = -144$

$y = -2$

$x-5y=11$

$x-5(-2)=11$

$x+10=11$

$x=1$

B

$\begin{cases} x+5y=1 \\ 2x=2-10y \end{cases}$ $\begin{cases} x+5y=1 \text{ (mult. } -2) \\ 2x+10y=2 \end{cases}$

$\begin{cases} -2x-10y=-2 \\ +(2x+10y=2) \end{cases}$

$0 = 0$

$\{(x,y) \mid x+5y=1\}$

R

$\begin{cases} 4x+3y=-6 \\ 5x-6y=-27 \end{cases}$ (mult. 2)

$\begin{cases} 8x+6y=-12 \\ +(5x-6y=-27) \end{cases}$

$13x = -39$

$x = -3$

$4x+3y=-6$

$4(-3)+3y=-6$

$-12+3y=-6$

$3y=6$

$y=2$

$(-3,2)$

A

$\begin{cases} 12x+14y=27 \\ 4x-3y=9 \end{cases}$ (mult. -3)

$\begin{cases} 12x+14y=27 \\ +(-12x+9y=-27) \end{cases}$

$23y = 0$

$y = 0$

$4x-3y=9$

$4x-3(0)=9$

$4x=9$

$x=9/4$

$(9/4, 0)$