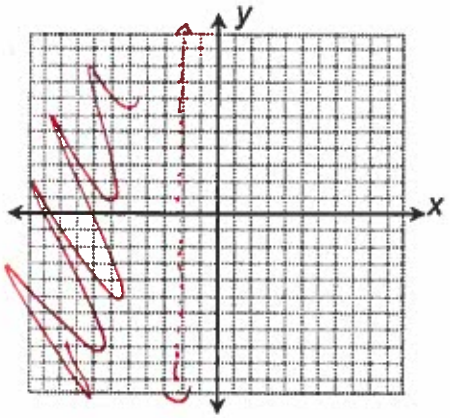
Algebra 1

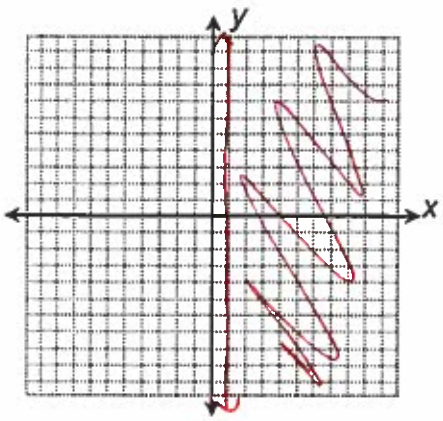
Name: Key

Section 5.6 Graphing

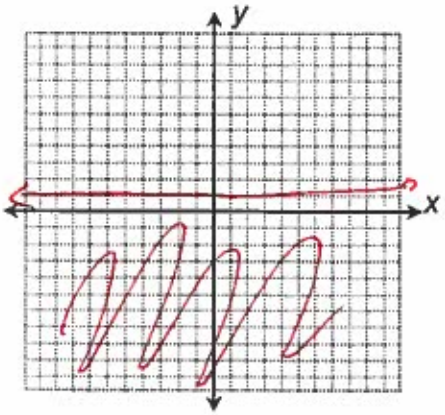
1) Sketch the graph of $x < -2$.



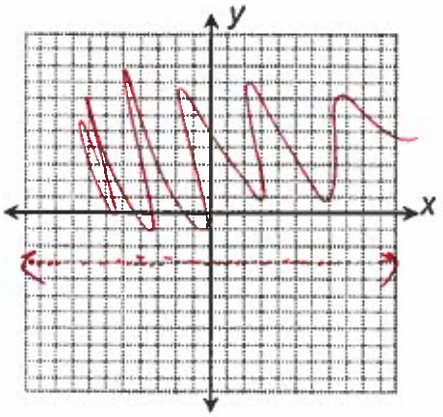
2) Sketch the graph of $x \geq 1$.



3) Sketch the graph of $y \leq 1$.



4) Sketch the graph of $y > -3$.



5) Sketch the graph of $x + y > 3$.

x-int: 3

y-int: 3

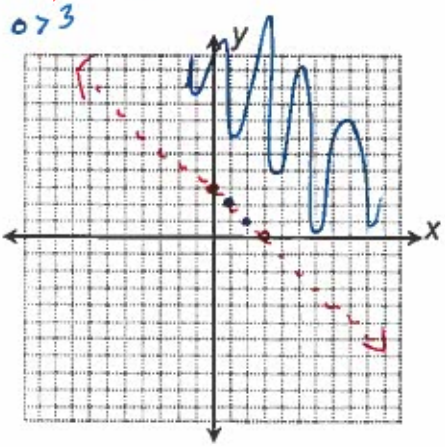
OR

$-x \quad -x$

$y > -x + 3$

(0,0) Test point!

$0 > 3$



6) Sketch the graph of $x - y \leq 2$.

x-int: 2

y-int: -2

(0,0) Test point!

$0 \leq 2$

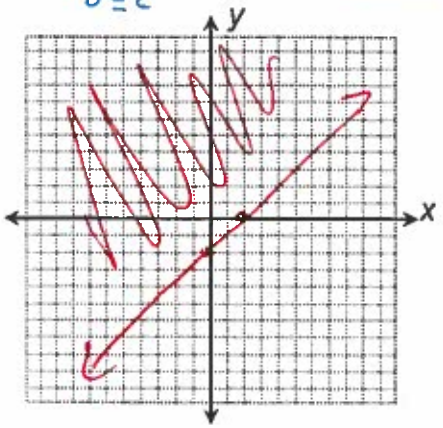
OR

$-x \quad -x$

$-y \leq -x + 2$

$\div -1 \quad \div -1 \quad \div -1$

$y \geq x - 2$

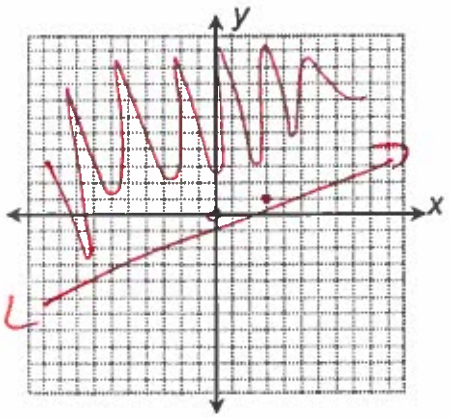


7) Sketch the graph of $x - 3y \leq 0$

$-x \quad -x$

$\frac{-3y}{-3} \leq \frac{-x}{-3}$ ÷ (-3)

$y \geq \frac{1}{3}x$ ÷ (-3)



Give a possible solution:

(0,10)

8) Sketch the graph of $3y - 2x < 6$

x-int: -3

OR

y-int: 2

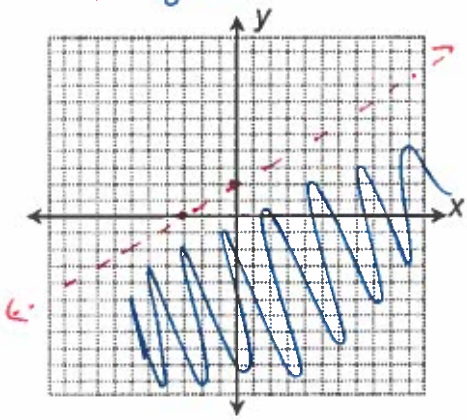
$+2x \quad +2x$

$\frac{3y}{3} < \frac{2x+6}{3}$

$y < \frac{2}{3}x + 2$

(0,0) test point!

$0 < 6$



Give a possible solution:

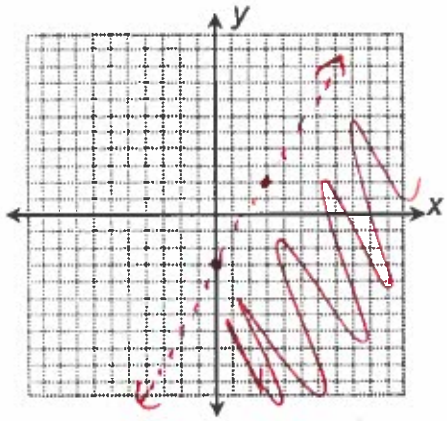
(5, -3)

9) Sketch the graph of $5x - 3y > 9$

$-5x \quad -5x$

$\frac{-3y}{-3} > \frac{-5x+9}{-3}$

$y < \frac{5}{3}x - 3$



Which quadrants are included in the shading of the graph? Does it included the boundary line?

I, III + IV ; No

10) Sketch the graph of $2y - x > 10$

x-int: -10

OR

y-int: 5

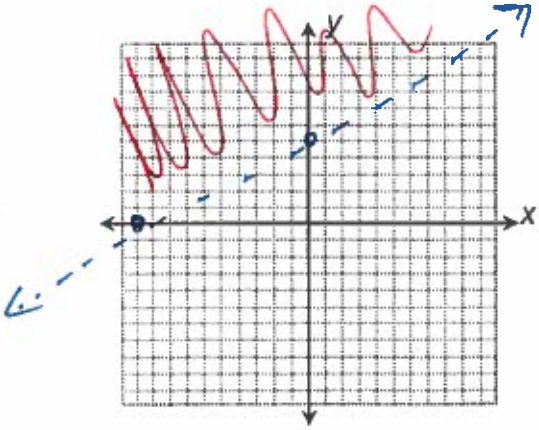
$+x \quad +x$

$\frac{2y}{2} > \frac{x+10}{2}$

$y > \frac{1}{2}x + 5$

(0,0) test point!

$0 > 10$



Which quadrants are included in the shading of the graph? Does it included the boundary line?

I + II ; No