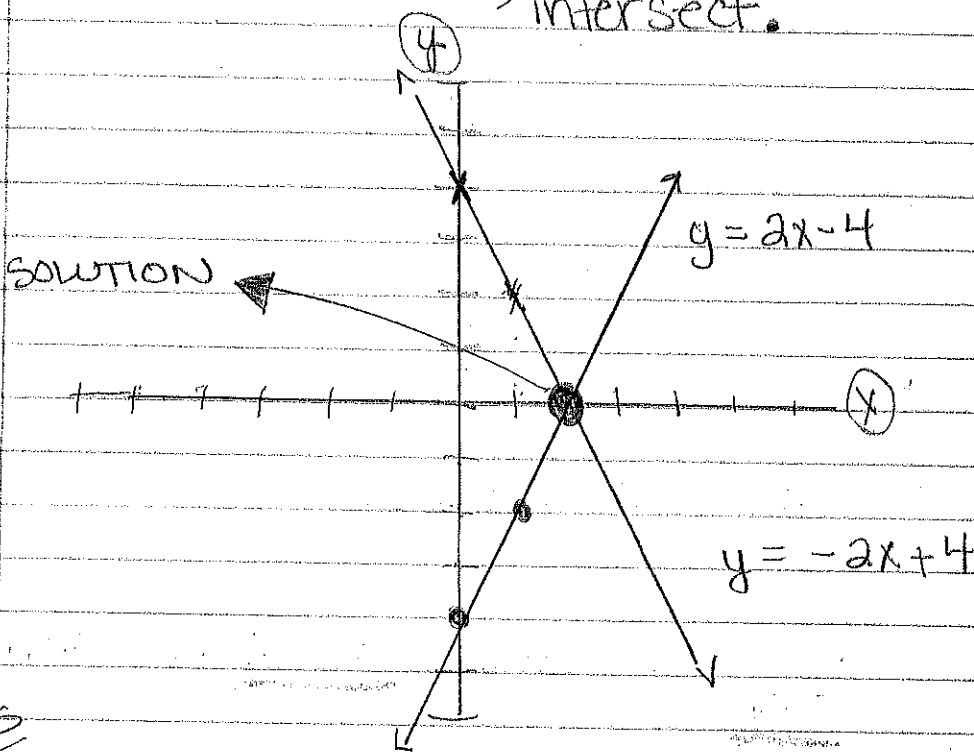


3.7

Solving Systems of Equations by Graphing

$y = 2x - 4$
 $y = -2x + 4$

} system of equation
 } 2 or more equations
 } and solution is when they intersect.

steps

① put equations in slope intercept form
 $y = mx + b$

② graph y-intercept

then... apply slope for 2nd point

③ SOLUTION: $(2, 0)$

2

$$y + x = 45$$



$$y = -x + 45$$

1) slope
intercept
form

2) graph

3) solution

$$2y + 4x = 130$$

$$2y = -4x + 130$$

$$\frac{2y}{2} = \frac{-4x + 130}{2}$$

$$y = -2x + 65$$

SPECIAL SITUATIONS

normal IF the lines intersect, there is ONE solution.

* IF the lines are parallel, there are ZERO solutions.

* IF the lines are the same, there are an infinite solutions.

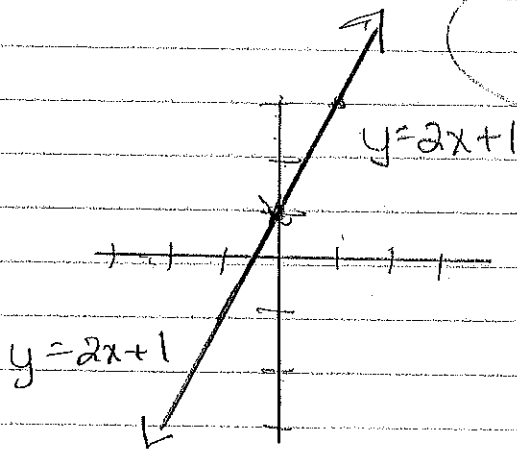
SPECIAL SITUATIONS

$$y = 2x + 1$$

$$y - 3 = 2x - 2$$

+3 +3

$$y = 2x + 1$$



INFINITE
OF SOLUTIONS