$6x - 9y = 18$

y-int

$(0, -2)$

$-9y = 18$

$y = -2$

9.6

Graphed lines

1) Plot pts
2) x & y intercepts
3) Slope - intercept form
   $y = mx + b$

rest of 9.6

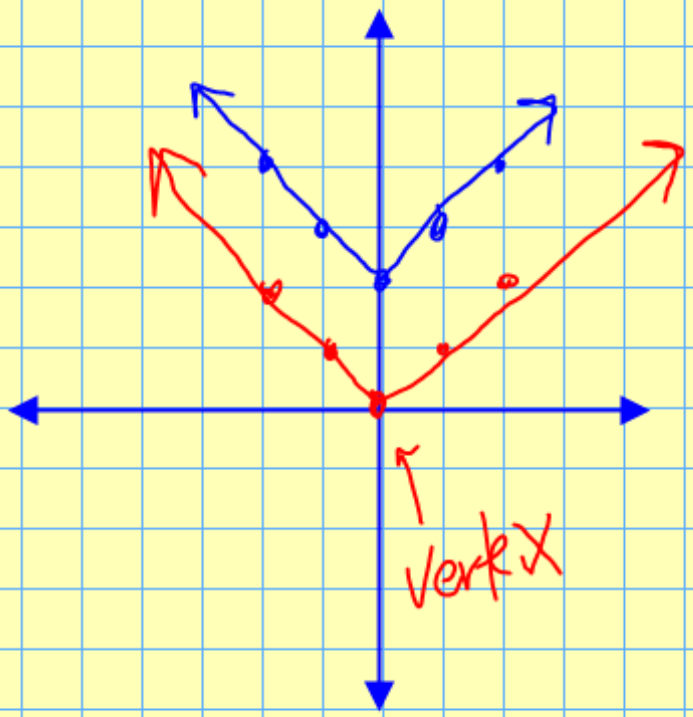
graph absolute values

$y = |x|$

Domain $(-\infty, \infty)$

$y = |x|$

x	y
-2	2
-1	1
0	0
1	1
2	2



end 9b

$y = |x| + 2$

x	y
-2	4
-1	3
0	2
1	3
2	4

9.7 Solve 2 variable

old — one variable
- linear = , < >
- abs. = , < > value

Solve the system: Solve

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

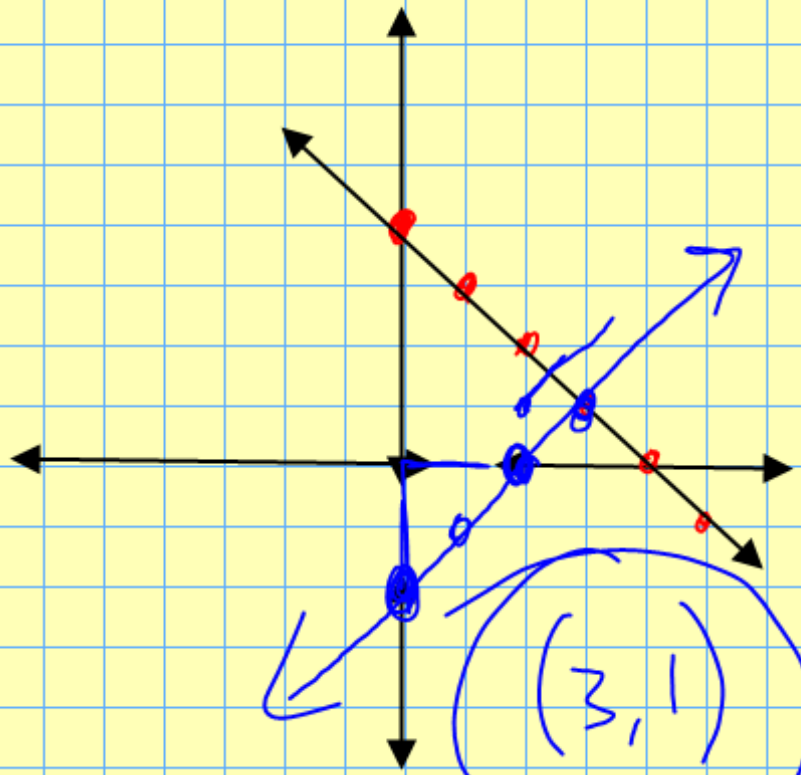
3 methods
1. By graphing
2. By substitution
3. Addition (Elimination)

Solve By Graphing

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

(B) $x-y=2$

x	y
0	-2
2	0



(A) graph

$x+y=4$

$y=-x+4$

$m=\frac{-1}{1}$

Solve by using Substitution

(A) $x + y = 4$

(B) $x - y = 2$

(A) $y = -x + 4$

(B) $x - (-x + 4) = 2$

$x + x - 4 = 2$

$2x - 4 = 2$

$\frac{2x}{2} = \frac{6}{2}$ $x = 3$

(3, 1)

(A) $3 + y = 4$

$y = 1$

Solve by the addition method

A $x + y = 4$

B $x - y = 2$

$x + y = 4$

$+ (x - y = 2)$

$2x = 6$

$x = 3$

(B) $3 - y = 2$

$-y = -1$

$y = 1$

(3, 1)

A) $2x+y=3$

B) $2x-3y=1$

$\left(\frac{5}{4}, \frac{1}{2}\right)$

Solve by Substitution

→ A) $y=-2x+3$

B) $2x-3(-2x+3)=1$

$2x+6x-9=1$

$8x=10$

$x=\frac{10}{8}=\frac{5}{4}$

A) $y=-2\left(\frac{5}{4}\right)+3$

$y=\frac{1}{2}$

$-\frac{2(5)}{4}$

$-\frac{10}{4}+\frac{3\cdot4}{4}$

$\frac{2}{4}$

Solve by elimination

$\left(\frac{17}{24}, \frac{1}{12}\right)$

$$\begin{cases} 2x - 5y = 1 \\ 4x + 2y = 3 \end{cases}$$

(2) $\rightarrow$ $-4x + 10y = -2$

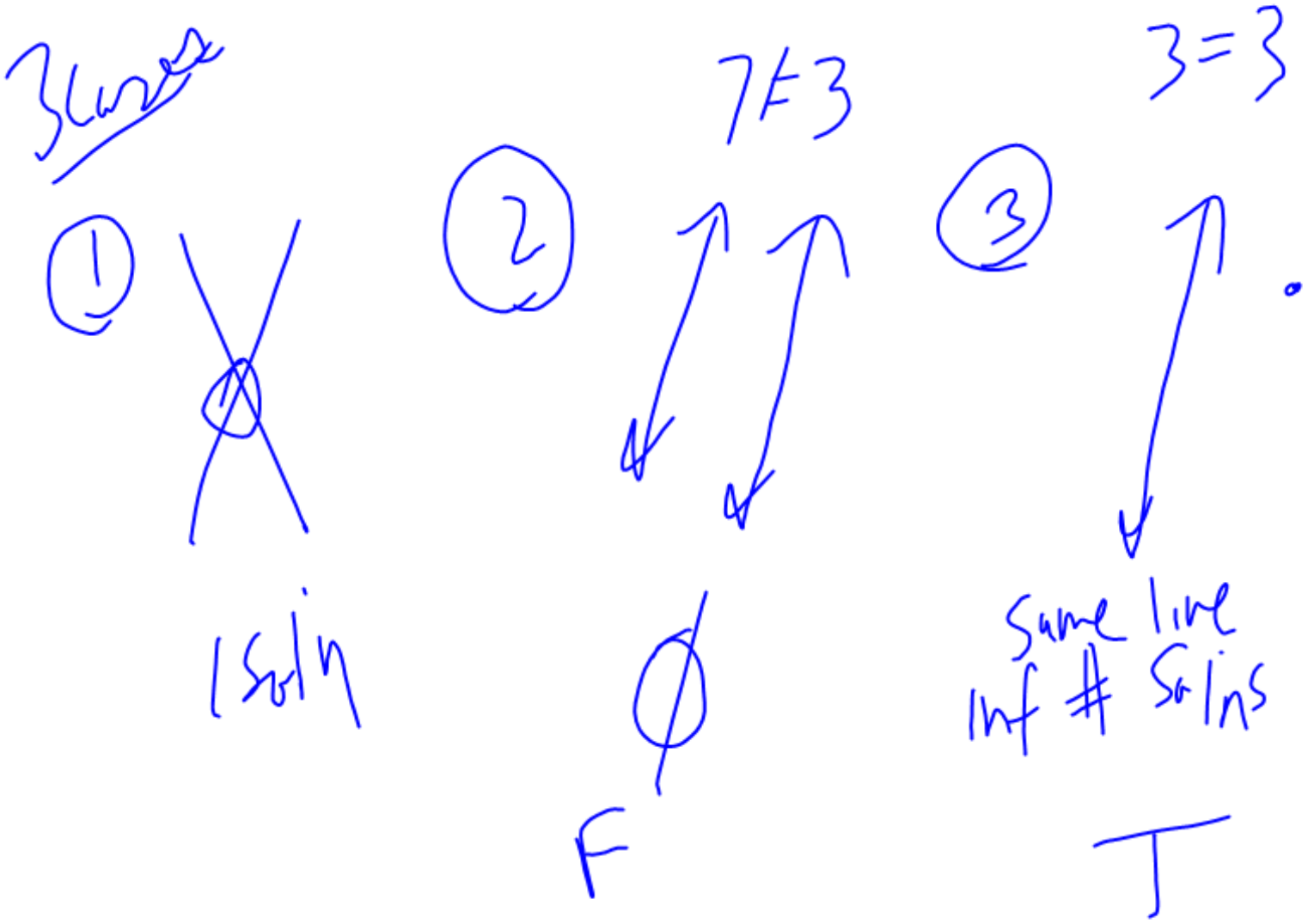
$4x + 2y = 3$

$12y = 1$

$y = \frac{1}{12}$

(B) $4x + 2\left(\frac{1}{12}\right) = 3$

$4x + \frac{1}{6} = 3$ $\rightarrow$ $\frac{1}{4} 4x = \frac{17}{6} \cdot \frac{1}{4}$ $x = \frac{17}{24}$


3 cases
1
1 soln
2
7≠3
F
3
3=3
same line
inf # soln
T