

March 4, 2015

$$3 + 3 \cdot \frac{1}{3} - 3 \div 3 + 3$$

$$3 + 1 - 3 \div 3 + 3$$

$$3 + 1 - 1 + 3$$

$$4 - 1 + 3$$

$$3 + 3$$

$$6$$

Mar 4-10:01 AM

$$\frac{\frac{2}{7} - \frac{5}{3}}{\frac{5}{6} + \frac{1}{4}} = \frac{\frac{6-35}{21}}{\frac{10+3}{12}}$$

$$= -\frac{29}{21} \cdot \frac{12}{12}$$

$$= -\frac{29}{21} \cdot \frac{4}{13}$$

$$= -\frac{116}{91}$$

Mar 4-10:06 AM

13.1 #10

$$\begin{cases} \frac{1}{2}x + \frac{1}{4}y = \frac{7}{4} \\ \frac{2}{3}x - \frac{1}{3}y = \frac{13}{3} \end{cases} \quad (1, 2)$$

$$\begin{cases} 2x + y = 7 \\ 2x - y = 13 \end{cases}$$

$$y = -2x + 7$$

$$2x - (-2x + 7) = 13$$

$$2x + 2x - 7 = 13$$

$$4x - 7 = 13$$

$$4x = 20$$

$$x = 5$$

$$\frac{1}{2}(5) + \frac{1}{4}y = \frac{7}{4}$$

$$\frac{5}{2} + \frac{1}{4}y = \frac{7}{4}$$

$$\frac{1}{4}y = \frac{7}{4} - \frac{10}{4}$$

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

$$y = -3$$

Mar 4-10:08 AM

Elimination

$$\begin{cases} x - 2y = 5 \\ -3x + 6y = 4 \end{cases}$$

$$\begin{array}{r|l} 3x & -6y & = & 15 \\ -3x & +6y & = & 4 \\ \hline 0 & 0 & = & 19 \end{array}$$

$0 \neq 19$

No Solution  
Parallel Lines!  
why?

Mar 4-10:15 AM

$$\begin{aligned} (1) \quad x - 2y &= 5 \\ -2y &= -x + 5 \\ \frac{-2y}{-2} &= \frac{-x}{-2} + \frac{5}{-2} \\ y &= \frac{1}{2}x - \frac{5}{2} \end{aligned}$$

$$\begin{aligned} (2) \quad -3x + 6y &= 4 \\ \frac{6y}{6} &= \frac{3x}{6} + \frac{4}{6} \\ y &= \frac{1}{2}x + \frac{2}{3} \end{aligned}$$

Mar 4-10:19 AM

<p>No Solution</p> <p>* Parallel Lines</p> <p><math>0 \neq 19</math></p> <p><math>-5 \neq 2</math></p> <p><math>6 \neq 8</math></p>	<p>Infinite Solutions</p> <p>* Same Lines</p> <p><math>2 = 2</math></p> <p><math>-6 = -6</math></p> <p><math>19 = 19</math></p>
---	---

Mar 4-10:21 AM

$f(x) = \sqrt{x}$   
 Parent  

$x$	$f(x)$
0	0
1	1
4	2
9	3

$f(-4) = \sqrt{-4} = \text{Not Real}$   
 $(?)^2 = \boxed{-4} \in \mathcal{R}$  ← not a Real Number  
 $(-2)^2 = (-2) \cdot (-2) = 4$

Mar 4-10:34 AM

$g(x) = \sqrt{x} + 2$   
 Vertical Shift up  

$x$	$g(x)$
0	2
1	3
4	4
9	5

$f(x) = \sqrt{x} + k$

Mar 4-10:43 AM