3R #2c

$$\begin{bmatrix} 2 & 1 & 2 & 0 \\ 6 & -4 & -5 & -2 \\ 4 & 1 & -3 & 2 \end{bmatrix} \begin{matrix} \\ \leftarrow \\ \leftarrow \\ \leftarrow \end{matrix} \rightarrow \begin{bmatrix} 2 & 1 & 2 & 0 \\ 0 & -7 & -11 & -2 \\ 0 & -1 & -7 & 2 \end{bmatrix}$$

$-3R_1$ -6 -3 -6 0 ←

$-2R_1$ -4 -2 -4 0 ←

$-7R_3$ 0 7 49 -14

$$\rightarrow \begin{bmatrix} 2 & 1 & 2 & 0 \\ 0 & +7 & 11 & 2 \\ 0 & 0 & 38 & -16 \end{bmatrix}$$

$$2x + \frac{18}{19} + 2\left(\frac{-8}{19}\right) = 0$$

$$2x = \frac{-2}{19} \Rightarrow \boxed{x = \frac{-1}{19}}$$

$$38z = -16$$

$$\boxed{z = \frac{-8}{19}}$$

$$7y + 11\left(\frac{-8}{19}\right) = 2$$

$$7y - \frac{88}{19} = \frac{38}{19} + \frac{88}{19} = \frac{126}{19}$$

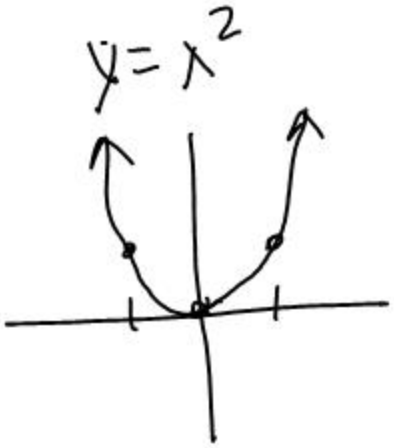
$$\boxed{y = \frac{18}{19}}$$

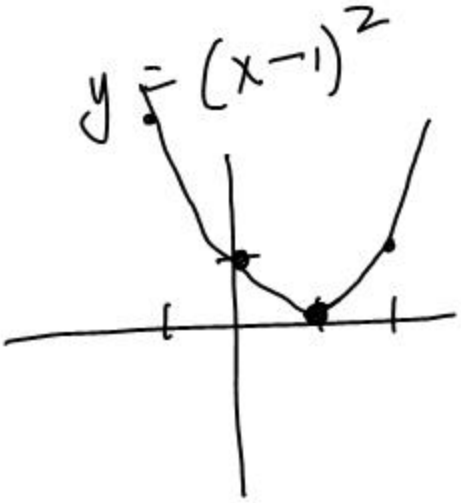
Be sure you can do this Cramer's Rule

flip over x-axis ↓ double ← left ← down

$y = -2f(x+1) - 3$

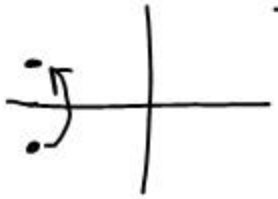
point	
$(-5,-2)$	$(-6,1)$
$(-4,0)$	$(-5,-3)$
$(-3,2)$	$(-4,-7)$
$(-1,-1)$	





$(-5,-2) \to (-6,-2) \to (-6,2)$

$\to (6,4)$

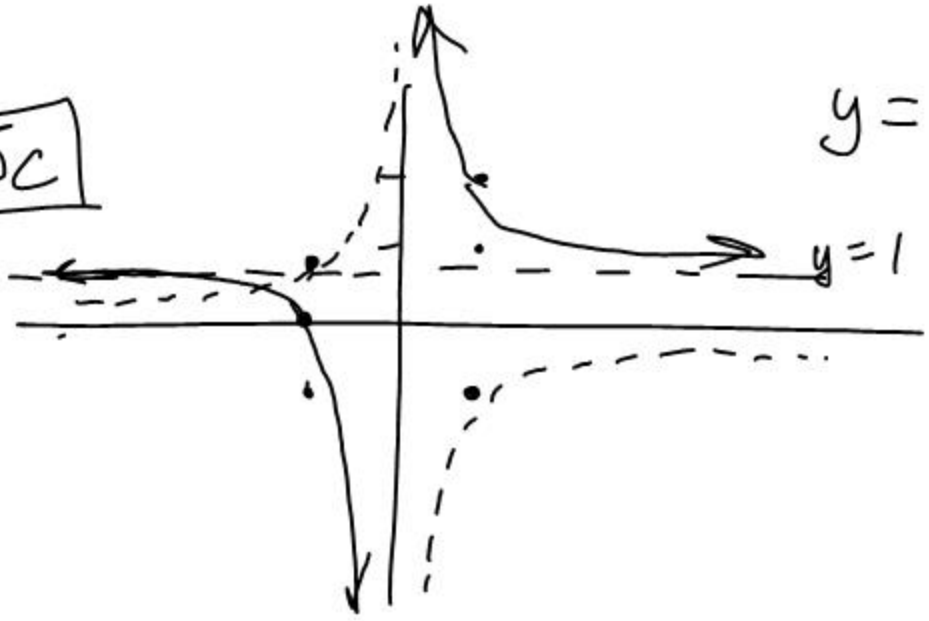


$\to (6,1)$

up ↓ flips over x-axis ↓

$y = 1 - f(x)$

#5c



$\begin{pmatrix} -1 \\ -2 \end{pmatrix}$ ← x-component

is a vector

← y-component

3R #3, 5

☒ #1, 2, 3, 4, 5, 8, 9

#4 – 3