Algebra 2 3.7

Evaluate determinants

Use Cramer's rule to solve systems of equations

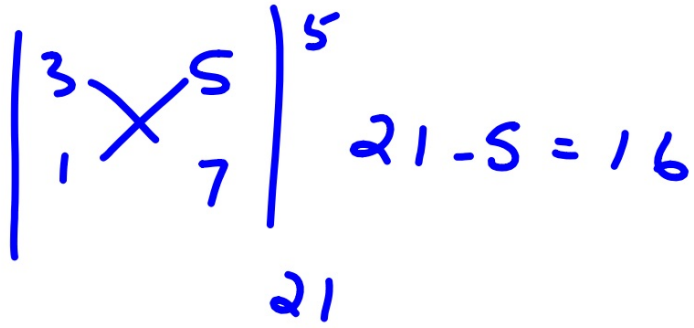
second order determinant

third order determinant

Cramer's rule

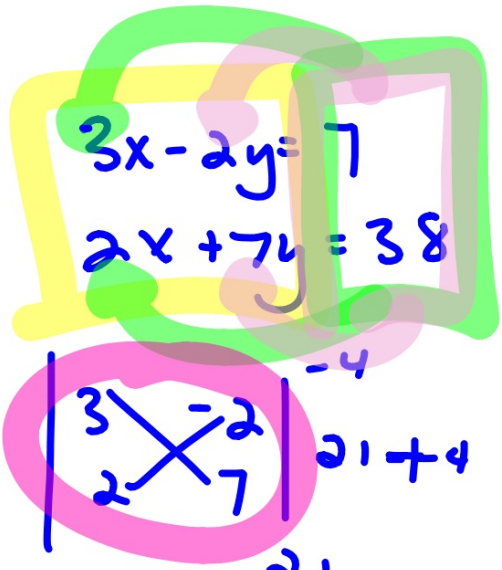
coefficient matrix

variable matrix



whiteboards

graphing calcs



$x = 5 \qquad y = 4$

$x = \frac{125}{25} \qquad y = \frac{100}{25}$

$x = \begin{vmatrix} 7 & -2 \\ 38 & 7 \end{vmatrix}$ -76

$49 + 76$

$y = \begin{vmatrix} 3 & 7 \\ 2 & 38 \end{vmatrix}$ 114 49 114

$114 - 14$

$10x - 3y = -34$

$3x + 8y = -28$ $\quad x = -4 \quad y = -2$

$$\begin{vmatrix} 10 & -3 \\ 3 & 8 \end{vmatrix}$$

$$x = \frac{-356}{89} \qquad y = \frac{-178}{89}$$

$$x: \begin{matrix} -34 & -3 \\ -28 & 8 \end{matrix}$$

5B. $6x + 5y + 2z = -1$

$-x + 3y + 7z = 12$

$5x - 7y - 3z = -52$

$x = -4 \quad y = 5 \quad z = -1$

$\frac{-1536}{384} \quad \frac{1920}{384} \quad \frac{-384}{384}$

$x = \begin{vmatrix} -1 & 5 & 2 \\ 12 & 3 & 7 \\ -52 & -7 & -3 \end{vmatrix}$

$y = \begin{vmatrix} 6 & -1 & 2 \\ -1 & 12 & 7 \\ 5 & -52 & -3 \end{vmatrix}$

$z = \begin{vmatrix} 6 & 5 & -1 \\ -1 & 3 & 12 \\ 5 & -7 & -52 \end{vmatrix}$

Cramer's rule system of 3 eq

graphing calcs

Determinants & Cramer's rule:

2x2 Show the work (by hand)

3x3 Can use calc (if you know what to do...othrwise old school)