



8. Get Organized In each box, write the appropriate formula. (p. 274).

	2 × 2 MATRIX	3 × 3 MATRIX
Determinant		
Cramer's Rule		

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Determinant	$\det \begin{bmatrix} a & b \\ c & d \end{bmatrix} = ad - cb$	$\det \begin{bmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & c_2 \\ a_3 & b_3 & c_3 \end{bmatrix} =$ $a_1 b_2 c_3 + b_1 c_2 a_3 + c_1 a_2 b_3 -$ $(a_3 b_2 c_1 + b_3 c_2 a_1 + c_3 a_2 b_1)$
Cramer's Rule	$x = \frac{\begin{vmatrix} c_1 & b_1 \\ c_2 & b_2 \end{vmatrix}}{D}, \text{ and } y = \frac{\begin{vmatrix} a_1 & c_1 \\ a_2 & c_2 \end{vmatrix}}{D},$ <p>where $D = \begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}$.</p>	$x = \frac{\begin{vmatrix} d_1 & b_1 & c_1 \\ d_2 & b_2 & c_2 \\ d_3 & b_3 & c_3 \end{vmatrix}}{D}, y = \frac{\begin{vmatrix} a_1 & d_1 & c_1 \\ a_2 & d_2 & c_2 \\ a_3 & d_3 & c_3 \end{vmatrix}}{D},$ <p>and $z = \frac{\begin{vmatrix} a_1 & b_1 & d_1 \\ a_2 & b_2 & d_2 \\ a_3 & b_3 & d_3 \end{vmatrix}}{D}$, where</p> $D = \begin{vmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & c_2 \\ a_3 & b_3 & c_3 \end{vmatrix} \text{ and } D \neq 0.$