

Student Name: _____

Score: _____

Evaluate the Determinants

ES1

Evaluate the following determinants:

$$\begin{vmatrix} 6 & 1 & 7 \\ 2 & -3 & 3 \\ 4 & -1 & 2 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} 1 & 3 & 7 \\ 4 & -4 & 6 \\ 2 & -9 & 8 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} -4 & -3 & 8 \\ -2 & -5 & 6 \\ 9 & 1 & 7 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} -5 & 6 & 3 \\ 4 & 2 & 4 \\ 3 & -4 & 7 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} 8 & 1 & 4 \\ 2 & 7 & 3 \\ 8 & -4 & 3 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} -1 & 3 & 8 \\ -9 & -1 & 7 \\ 0 & 2 & 1 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} 3 & 1 & 6 \\ 5 & -8 & -8 \\ 6 & 3 & 9 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} 6 & 4 & 2 \\ 3 & -7 & 1 \\ 5 & 5 & 3 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} 3 & 9 & 1 \\ 2 & -10 & 1 \\ 5 & 3 & 8 \end{vmatrix} = \boxed{}$$

$$\begin{vmatrix} 3 & 4 & -6 \\ 8 & 3 & 2 \\ -7 & 1 & 1 \end{vmatrix} = \boxed{}$$

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Answer key

Evaluate the Determinants

ES1

$$\begin{vmatrix} 6 & 1 & 7 \\ 2 & -3 & 3 \\ 4 & -1 & 2 \end{vmatrix} = 60$$

$$\begin{vmatrix} 1 & 3 & 7 \\ 4 & -4 & 6 \\ 2 & -9 & 8 \end{vmatrix} = -234$$

$$\begin{vmatrix} -4 & -3 & 8 \\ -2 & -5 & 6 \\ 9 & 1 & 7 \end{vmatrix} = 304$$

$$\begin{vmatrix} -5 & 6 & 3 \\ 4 & 2 & 4 \\ 3 & -4 & 7 \end{vmatrix} = -312$$

$$\begin{vmatrix} 8 & 1 & 4 \\ 2 & 7 & 3 \\ 8 & -4 & 3 \end{vmatrix} = 26$$

$$\begin{vmatrix} -1 & 3 & 8 \\ -9 & -1 & 7 \\ 0 & 2 & 1 \end{vmatrix} = -102$$

$$\begin{vmatrix} 3 & 1 & 6 \\ 5 & -8 & -8 \\ 6 & 3 & 9 \end{vmatrix} = 141$$

$$\begin{vmatrix} 6 & 4 & 2 \\ 3 & -7 & 1 \\ 5 & 5 & 3 \end{vmatrix} = -72$$

$$\begin{vmatrix} 3 & 9 & 1 \\ 2 & -10 & 1 \\ 5 & 3 & 8 \end{vmatrix} = -292$$

$$\begin{vmatrix} 3 & 4 & -6 \\ 8 & 3 & 2 \\ -7 & 1 & 1 \end{vmatrix} = -259$$