COLLEGE ALGEBRA QUIZ

(1) Evaluate the determinant of $\begin{vmatrix} 2 & -5 \\ 3 & 4 \end{vmatrix}$.

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(2) Evaluate the determinant of $\begin{vmatrix} \sqrt{5} & -3 \\ -5 & -\sqrt{5} \end{vmatrix}$.

-20

(3) Evaluate the determinant of $\begin{vmatrix} 1 & -3 & -3 \\ -1 & 2 & 1 \\ 3 & -4 & 5 \end{vmatrix}$.

-4

(4) Evaluate the determinant of $\begin{vmatrix} -2 & 2 & -4 \\ 2 & -4 & -1 \\ 0 & 5 & 2 \end{vmatrix}$.

-42

(5) Solve the following system of equations using Cramer's rule.

$$4x + 10y = -2$$
$$8x + y = 53$$

$(7, -3)$

(6) Solve the following system of equations using Cramer's rule.

$$x + 5y = 48$$
$$7x + 6y = 46$$

$(-2, 10)$

(7) Solve the following system of equations using Cramer's rule.

$$-x + 7y - 2z = 8$$
$$-4x + 9y + 5z = -2$$
$$4x - 3y + 7z = 6$$

$(\frac{514}{153}, \frac{230}{153}, \frac{-64}{153})$

(8) Solve the following system of equations using Cramer's rule.

$$3x + 6y + 7z = 85$$
$$4x + y - z = -15$$
$$9x + 6y + 6z = 54$$

$(-4, 8, 7)$