(b)
$$\frac{\begin{vmatrix} -1 & -3 & -2 \\ -1 & -5 & -3 \\ -2 & -7 & -8 \end{vmatrix}}{\begin{vmatrix} 2 & 5 & 6 \\ 3 & 1 & 2 \\ 1 & 2 & 7 \end{vmatrix}}$$

(c)
$$\frac{\begin{vmatrix} 2 & -3 & 5 \\ 0 & 1 & 2 \\ 1 & 2 & 1 \end{vmatrix}}{\begin{vmatrix} -2 & 3 & 0 \\ 0 & 1 & 2 \\ -3 & 2 & 1 \end{vmatrix}}$$

ANSWERS

1. (a) 1; (b) $-3\frac{}{}$; (c) 45; (d) $ab^2 - a^2b + 6 + 2ab - a^2 - 3b^2$
2. (a) -68; (b) $\frac{7}{59}$; (c) $\frac{17}{12}$

LESSON 5125-2

SYSTEMS OF LINEAR EQUATIONS

EXAMINATION

Mail in this and all examinations promptly, as they are completed. Then start on the next lesson.

1. Given the equation below, find $f(x)$ where $y = f(x)$.
   $$8y(6x - 7) - 12x(4y + 3) + 265 - 5(3x - y + 2) = 0.$$
   (Hint: solve for y)

   (1) $x - 5$.   (4) $\dfrac{51x - 255}{44x - 51}$.

   (2) $y + 5$.   (5) $\dfrac{51y + 255}{41}$.

   (3) $5 - x$.   (6) $\dfrac{255 - 51x}{41}$.

2. Solve these linear equations for x, y, and z.
   $$3x + 5y - 2z = 20$$
   $$4x - 10y - z = -25$$
   $$x + y - z = 5$$

   the value of x is in the range

   (1) $-4 \leqq x \leqq -3$.   (3) $0 \leqq x \leqq 2$.
   (2) $-2 \leqq x \leqq 0$.   (4) $2 \leqq x \leqq 4$.