SECTION M-3

EXERCISE A

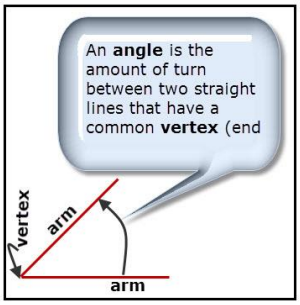
Use Cramer's Rule to solve each system of equations.

1) $5x + 2y = 8$
$2x - 2y = 7$

2) $2x + 7y = 4$
$x - 2y = -20$

3) $2x - y = 1$
$3x + 2y = 19$

4) $x + y + z = 6$
$2x + y - 4z = -15$
$5x - 3y + z = -10$



5) The two sides of an angle are contained in lines whose equations are $4x + y = -4$ and $2x - 3y = -9$. Find the coordinates of the vertex of the angle.

EXERCISE B

Use Cramer's Rule to solve each system of equations.

6) $3x + 5y = 33$
$5x + 7y = 51$

7) $2x - 4y = -1$
$3y - 4x = -5$

8) $4x + 3y = 6$
$8x - y = -9$

Use Cramer's Rule & the graphing calculator to solve the following systems of equations.

9) $x - 2y + z = 7$
$6x + 2y - 2z = 4$
$4x + 6y + 4z = 14$

10) $4a + 2b - 3c = -32$
$-a - 3b + c = 54$
$2b + 8c = 78$

EXERCISE C

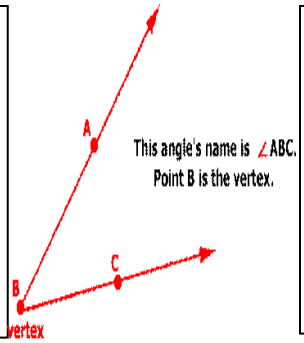
11) Jackson and Drew each purchased some game and ride tickets at the fair. Using the chart:

a) Write a system of two equations.

b) Find the prices for each type of ticket.

PERSON	TICKET TYPE	# OF TICKETS	TOTAL
Jackson	game ride	6 15	$93.00
Drew	game ride	7 12	$81.00

12) The two sides of an angle are contained in lines whose equations are $2.3x + 1.2y = 2.1$ and $4.1x - 0.5y = 14.3$. Find the coordinates of the vertex of the angle.



13) Write the system of equations whose solution is:

$$x = \frac{\begin{vmatrix} -6 & 5 \\ 30 & -2 \end{vmatrix}}{\begin{vmatrix} 3 & 5 \\ 4 & -2 \end{vmatrix}} \qquad y = \frac{\begin{vmatrix} 3 & -6 \\ 4 & 30 \end{vmatrix}}{\begin{vmatrix} 3 & 5 \\ 4 & -2 \end{vmatrix}}$$

ANSWERS:

1) (2, -1)
3) (3, 5)
5) (-1.5, 2)
7) (-4, -1.75)
9) (2, -1, 3)
11a) $6g + 15r = 93$
$7g + 12r = 81$
11b) ($3, $5)
13) $3x + 5y = -6$
$4x - 2y = 30$