Algebra II, Making Practice Fun 74 Name _____

Determinants and Two Equations

FACTS ABOUT PREHISTORIC ANIMALS

1. Work each exercise.
2. Find the code letter for the correct answer.
3. Write the code letter in each blank having that exercise number.

Exercises

Evaluate.

1. $\begin{vmatrix} 3 & 8 \\ 1 & 4 \end{vmatrix} = 4$ U
2. $\begin{vmatrix} 7 & 9 \\ 4 & 5 \end{vmatrix}$
3. $\begin{vmatrix} -1 & 4 \\ -3 & 7 \end{vmatrix}$
4. $\begin{vmatrix} 6 & -8 \\ -5 & -8 \end{vmatrix}$
5. $\begin{vmatrix} 5 & 6 \\ 6 & 5 \end{vmatrix}$
6. $\begin{vmatrix} 12 & -10 \\ 5 & -5 \end{vmatrix}$
7. $\begin{vmatrix} 0 & 7 \\ 7 & 0 \end{vmatrix}$
8. $\begin{vmatrix} -4 & 1 \\ -1 & 1 \end{vmatrix}$
9. $\begin{vmatrix} 1.4 & 1.5 \\ 2.2 & 2.3 \end{vmatrix}$
10. $\begin{vmatrix} 1.2 & 6 \\ 1.27 & 6.4 \end{vmatrix}$

Solve by Cramer's rule.

11. $-3x - 5y = 1$
    $2x - 2y = 10$
12. $4x + 2y = 2$
    $8x - 6y = -1$
13. $12x + 8y = -1$
    $4x - 2y = 2$
14. $5x + 9y = 3$
    $3x + 7y = 5$
15. $9x - 4y = 1$
    $12x + 6y = 7$
16. $7x - 11y = 6$
    $6x - 7y = 10$

Code Letter	Answer
A	$(\frac{1}{4}, -\frac{1}{2})$
B	-10
C	0.06
D	-11
E	(4, 2)
F	(2, 4)
G	$(\frac{1}{3}, -\frac{1}{2})$
H	-3
I	$(\frac{1}{3}, \frac{1}{2})$
L	$(-3, 2)$
M	-0.08
N	5
O	$(3, -2)$
P	-1
R	-88
S	$(\frac{1}{4}, \frac{1}{2})$
T	-49
U	4

This meat-eating dinosaur, the largest that ever lived, weighed over 2 tons:

						U		U	
13	14	14	11	12	13	1	4	1	12

This land mammal, the largest that ever lived, was over 5 m high:

			U									U	
6	13	14	1	10	8	15	7	8	16	4	15	1	9

This flying reptile had a wingspread of over 7 m:

2	7	16	4	13	3	11	5	11	3

This horse, the earliest known, was in existence over 50 million years ago:

	U					U	
16	1	8	15	2	2	1	12