Name: _____ Period: ____

Factor each polynomial below. Find one of the factors in **each** column of binomials. Notice the letter next to one factor and the number next to the other. Write the letter in the box at the bottom of the page that contains the matching number.

(1) $4n^2 - 49$	(3) $(n + 1)$	(O) $(n - 3)$
(2) $n^2 + 8n + 12$	(11) $(n + 2)$	(G) $(2n - 7)$
(3) $n^2 - 9n + 20$	(2) $(n + 8)$	(P) $(n - 5)$
(4) $n^2 + 16n + 64$	(9) $(2n + 7)$	(S) $(3n - 5)$
(5) $n^2 + 2n - 15$	(4) $(n + 5)$	(Y) $(n + 8)$
(6) $3n^2 - 8n + 5$	(18) $(n - 1)$	(K) $(3n - 1)$
	(14) $(n - 4)$	(A) $(n + 6)$

(7) $a^2 + 4a - 21$	(1) $(a - 5)$	(G) $(2a + 1)$
(8) $5a^2 + 9a - 2$	(13) $(a + 7)$	(B) $(a - 6)$
(9) $2a^2 + 11a + 15$	(5) $(5a + 1)$	(P) $(a - 3)$
(10) $1 - 9a^4$	(7) $(a + 2)$	(O) $(a + 3)$
(11) $a^2 - 11a + 30$	(15) $(a - 1)$	(I) $(5a - 1)$
(12) $10a^2 - 3a - 1$	(8) $(1 - 3a^2)$	(R) $(2a - 1)$
	(16) $(2a + 5)$	(N) $(1 + 3a^2)$

(13) $8u^2 + 19u + 6$	(10) $(u + 3)$	(M) $(u + 1)$
(14) $25u^2 - 20u + 4$	(12) $(2u + 9)$	(B) $(2u + 1)$
(15) $3u^2 - 11u - 14$	(17) $(u - 3)$	(O) $(8u + 3)$
(16) $u^2 - 4u - 21$	(3) $(5u - 2)$	(L) $(2u - 1)$
(17) $6u^2 + 17u - 10$	(6) $(3u - 14)$	(C) $(u - 7)$
(18) $2u^2 + 5u - 18$	(15) $(u + 2)$	(R) $(u - 2)$
	(17) $(3u + 10)$	(F) $(5u - 2)$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Factor each trinomial below. Find both factors in the rectangle below and cross out each box containing a factor. You will cross out **two** boxes for each exercise. When you finish, print the letters from the remaining boxes in the squares at the bottom of the page.

1. $6x^2 + 19x + 3$
2. $5x^2 - 9x - 2$
3. $9x^2 + 15x + 4$
4. $7x^2 + x - 8$
5. $2x^2 - 21x + 40$
6. $15m^2 + 19m + 6$
7. $8m^2 - 5m - 3$
8. $4m^2 - 17m + 18$
9. $14m^2 + 17m - 22$
10. $3m^2 - m - 30$

TH $(4m - 9)$	**AT** $(3x + 1)$	**PA** $(m - 2)$	**DO** $(m - 3)$	**NE** $(2x - 5)$	**XT** $(3m - 10)$	**CK** $(14m - 11)$	**YO** $(2m - 3)$	**UR** $(5x + 1)$
UP $(6x + 1)$	**UW** $(15m + 1)$	**IN** $(x + 3)$	**PL** $(m + 2)$	**AN** $(x + 4)$	**DA** $(5m + 3)$	**RE** $(x - 2)$	**MA** $(3m + 2)$	**TT** $(9x + 2)$
CO $(7x + 8)$	**LD** $(3x + 4)$	**IB** $(7x + 2)$	**ER** $(8m + 3)$	**AJ** $(m + 3)$	**ET** $(7m + 2)$	**ON** $(x - 8)$	**HI** $(m - 1)$	**GH** $(x - 1)$

For each exercise below, use the clue to help unscramble the letters of the word in parentheses. Then write this word in the adjacent boxes. One or more of the boxes has a number. Whenever you write a letter in a numbered box, transfer that letter to the matching numbered box at the bottom of the page.

(1)	A symbol used to represent a number (BARELAVI).														15							
(2)	A statement of equality (OUTNQEAI).													9					20			
(3)	A value that satisfies an open sentence (LOUNSIOT).																17					
(4)	For all real numbers ***a***, ***b***, and ***c***: $a(b+c)=ab+ac$ (RIIIUVESDBTT).								8												6	
(5)	An equation that expresses a relationship between measurements (ARFLMOU).															2						
(6)	A number that is multiplied by a variable (EOFIETIFCNC).											21										
(7)	For a real number ***a***, the real number $-a$ (PESTOOIP).																		23		12	
(8)	For a nonzero real number ***a***, the real number $\frac{1}{a}$ (CLERIRACPO).											14										
(9)	To express as a product of two or more quantities (OFCRTA).																			1		
(10)	A product in which all the factors are the same (EORPW).																		5			22
(11)	A sum of monomials (PMALONOILY).																				18	
(12)	A polynomial with two terms (IAMNILBO).													10								
(13)	A polynomial whose greatest monomial factor is 1 (MREIP).																3					11
(14)	The set of whole numbers and their opposites (EENSIGRT).													7							4	
(15)	A polynomial equation of degree two (DUCATARQI).											16					19			13		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Number Challenge!

Directions: Use the numbers 0 – 9 in the blanks to make the equations true.

You may only use each number once!!

only once!

1. $10 \div \square + \square - 3 = 1$

2. $\square \div 3 + 7 - \square = 6$

3. $16 \div 2 + \square - 6 = \square$

4. $12 \div \square + 3 - 5 = \square$

5. $\square \div 4 + 9 - \square = 4$