KEY

First Name:_____ Last Name:_____

L16 - FQ – 5.3 Factoring Trinomials (a=1)

Q1: Which of the following represents the factored form of $x^2 + 8x + 7$?

a. $(x+1)(x+7)$
b. $(x-1)(x-7)$
c. $(x+1)(x+8)$
d. $(x-1)(x-8)$

+1 +7
□ + □ = 8
□ × □ = 7
1, 7

(x +1)(x +7)

Q2: The expression $x^2 + 4x - 12$ can be factored into the form $(x + \boldsymbol{a})(x - \boldsymbol{b})$, where ***a*** and ***b*** are ___ and ___.

*(Record your **two digit** answer in the Numerical Response boxes below)*

6	2		

$x^2+4x-12$

+6 -2
□ + □ = 4
□ × □ = -12

1, 12
2, 6
3, 4

(x +6)(x -2)
(x +a)(x - b)
So a = 6
b = 2

Q3: *(Long Answer)* Fully factor the expression $2x^2 + 6x - 36$ *(2 marks)*

$2(x^2+3x-18)$

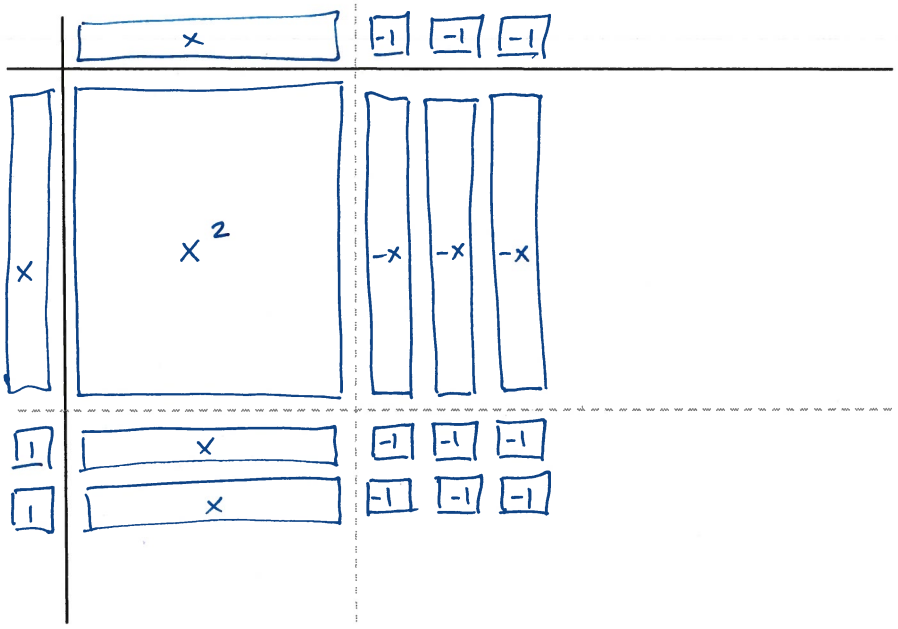
+6 -3
□ + □ = 3
□ × □ = -18

1, 18
2, 9
3, 6

2(x +6)(x -3)

KEY

Q4: *(Long Answer)* Using an Algebra Tile diagram, factor $x^2 - x - 6$ *(1 marks)*



$(x-3)(x+2)$

MARKING

Beginning	0.0 – 2.0
Progressing	2.5 – 3.5
Competent	4.0 – 4.5
Exemplary	5.0