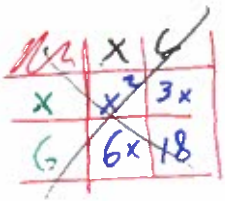
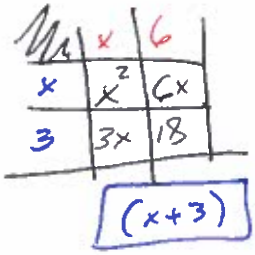
Name: Key

8.1-8.4 Quiz Review
Operations of Polynomials

1) Similar to how you could approach $5x = 35$ thinking what number multiplied by five would yield 35? Think about approaching multiplying polynomials the same way. What's the missing part of the box/foil/horizontal/vertical?:

a) Find the missing linear binomial Z: $(x + 6)\,Z = x^2 + 3x + 6x + 18$





b) Find the missing linear binomial Z: $(j - 1)\,Z = j^2 + 8j - j - 8$

$(j + 8)$

c) Find the missing linear binomial Z: $(k - 3)\,Z = 7k^2 - 21k - 5k + 15$

$(7k - 5)$

2) Find the product:

a) $(6x - 9)(4x^2 + 1)$

$24x^3 - 36x^2 + 6x - 9$

b) $\left(x + \frac{3}{4}\right)\left(x - \frac{1}{4}\right)$

$x^2 + \frac{1}{2}x - \frac{3}{16}$

c) $(3x^2 - 4x + 1)(x + 5)$

$3x^3 + 11x^2 - 19x + 5$

3) If $A = n - 4$ and $B = n^2 - 6n + 8$, find:

a) A + B
b) A − B
c) (A)(B)

a) $(n - 4) + (n^2 - 6n + 8)$

$n^2 - 5n + 4$

b) $(n - 4) - (n^2 - 6n + 8)$

$-n^2 + 7n - 12$

c)

	n^2	$-6n$	8
n	n^3	$-6n^2$	$8n$
-4	$-4n^2$	$24n$	-32

$n^3 - 10n^2 + 32n - 32$

4) Find the product $(4p + 6p^2)^2$

$16p^2 + 48p^3 + 36p^4$

S.F.!

$36p^4 + 48p^3 + 16p^2$