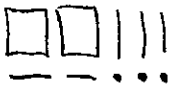
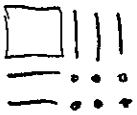
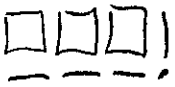
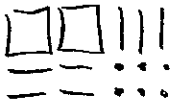
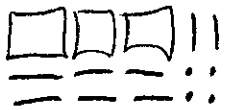
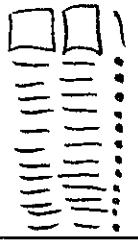
M10-C Polynomials **Name:** KEY

Rectangles and Algebra Tiles #1

Polynomial	Sketch of Rectangle	Grid	Dimensions (factors)
$2x^2+5x+3$		$\begin{array}{c\|cc} & 2x & +3 \\ \hline x & 2x^2 & 3x \\ +1 & 2x & 3 \end{array}$	$(x+1)(2x+3)$
x^2+5x+6		$\begin{array}{c\|cc} & x & +3 \\ \hline x & x^2 & 3x \\ +2 & 2x & 6 \end{array}$	$(x+2)(x+3)$
$3x^2+4x+1$		$\begin{array}{c\|cc} & 3x & +1 \\ \hline x & 3x^2 & x \\ +1 & 3x & 1 \end{array}$	$(x+1)(3x+1)$
$2x^2+7x+6$		$\begin{array}{c\|cc} & 2x & +3 \\ \hline x & 2x^2 & 3x \\ +2 & 4x & 6 \end{array}$	$(x+2)(2x+3)$
$x^2+7x+12$		$\begin{array}{c\|cc} & x & +3 \\ \hline x & x^2 & 3x \\ +4 & 4x & 12 \end{array}$	$(x+4)(x+3)$

$3x^2+8x+4$			$(x+2)(3x+2)$
$2x^2+7x+5$			$(x+1)(2x+5)$
$2x^2+25x+12$			$(x+12)(2x+1)$
$2x^2+7x+3$			$(x+3)(2x+1)$
$2x^2+11x+12$			$(x+4)(2x+3)$

	$3x$	$+2$
x	$3x^2$	$2x$
$+2$	$6x$	4

	$2x$	$+5$
x	$2x^2$	$5x$
$+1$	$2x$	5

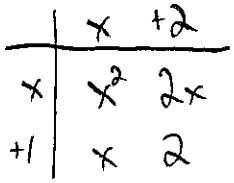
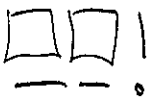
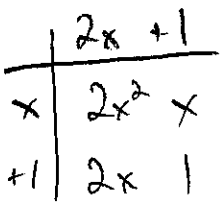
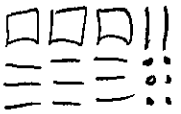
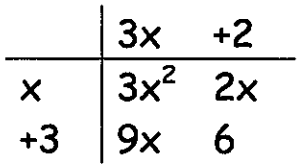
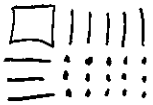
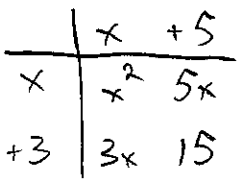
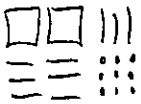
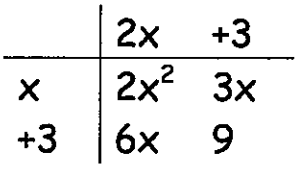
	$2x$	$+1$
x	$2x^2$	x
$+12$	$24x$	12

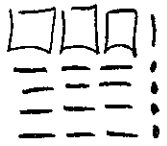
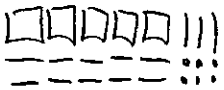
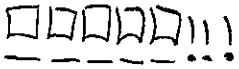
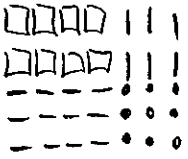
	$2x$	$+1$
x	$2x^2$	x
$+3$	$6x$	3

	$2x$	$+3$
x	$2x^2$	$3x$
$+4$	$8x$	12

M10-C Polynomials Name: KEY

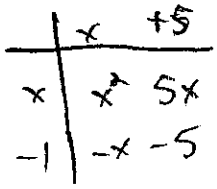
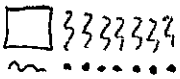
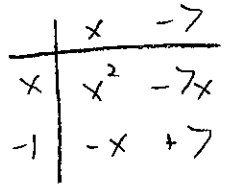
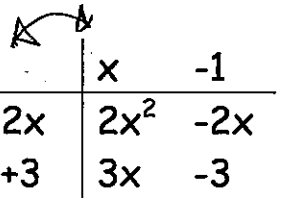
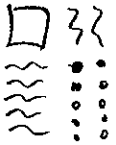
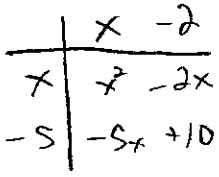
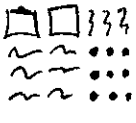
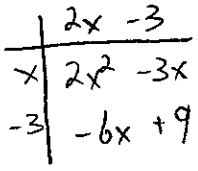
Rectangles and Algebra Tiles Chart #2

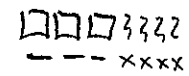
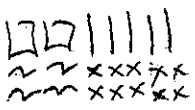
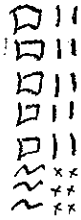
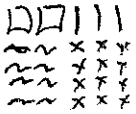
Polynomial	Sketch of Rectangle	Grid	Factors
x^2+3x+2			$(x+1)(x+2)$
$2x^2+3x+1$			$(x+1)(2x+1)$
$3x^2+11x+6$			$(x+3)(3x+2)$
$x^2+8x+15$			$(x+3)(x+5)$
$2x^2+9x+9$			$(x+3)(2x+3)$

$3x^2+13x+4$		$\begin{array}{c\|cc} & 3x & +1 \\ \hline x & 3x^2 & x \\ +4 & 12x & 4 \end{array}$	$(x+4)(3x+1)$
$6x^2+5x+1$		$\begin{array}{c\|cc} & 3x & +1 \\ \hline 2x & 6x^2 & 2x \\ +1 & 3x & 1 \end{array}$	$(2x+1)(3x+1)$
$5x^2+13x+6$		$\begin{array}{c\|cc} & 5x & +3 \\ \hline x & 5x^2 & 3x \\ +2 & 10x & 6 \end{array}$	$(5x+3)(x+2)$
$5x^2+8x+3$		$\begin{array}{c\|cc} & 5x & +3 \\ \hline x & 5x^2 & 3x \\ +1 & 5x & 3 \end{array}$	$(x+1)(5x+3)$
$8x^2+18x+9$		$\begin{array}{c\|cc} & 4x & +3 \\ \hline 2x & 8x^2 & 6x \\ +3 & 12x & 9 \end{array}$	$(2x+3)(4x+3)$

M10-C Polynomials Name: KEY

Rectangles and Algebra Tiles Chart #3

Polynomial	Sketch of Rectangle	Grid	Factors
x^2+4x-5			$(x-1)(x+5)$
x^2-8x+7			$(x-1)(x-7)$
$2x^2+x-3$			$(x-1)(2x+3)$
$x^2-7x+10$			$(x-5)(x-2)$
$2x^2-9x+9$			$(x-3)(2x-3)$

$3x^2-x-4$			$(x+1)(3x-4)$
$2x^2+x-10$		$\begin{array}{c\|c} & 2x+5 \\ \hline x & 2x^2+5x \\ -2 & -4x-10 \end{array}$	$(x-2)(2x+5)$
$5x^2+7x-6$		$\begin{array}{c\|c} & x+2 \\ \hline 5x & 5x^2+10x \\ -3 & -3x-6 \end{array}$	$(5x-3)(x+2)$
$2x^2-5x-12$		$\begin{array}{c\|c} & 2x+3 \\ \hline x & 2x^2+3x \\ -4 & -8x-12 \end{array}$	$(x-4)(2x+3)$
$3x^2-14x+8$		$\begin{array}{c\|c} & 3x-2 \\ \hline x & 3x^2-2x \\ -4 & -12x+8 \end{array}$	$(x-4)(3x-2)$