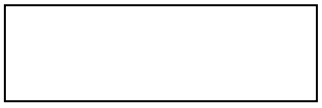
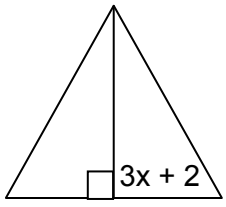
Name: _____ Date: _____

Work the Practice Problems on a separate sheet of paper.

What you need to know & be able to do	**Things to remember**		
1. Classify by degree and number of terms. State the leading coefficient.	Degree: highest exponent Leading Coefficient: in front of degree Classification: monomial, binomial, trinomial	$2x^2 + 6x - 1$ Degree: **2** Leading Coefficient: **2** Classify: **quadratic, trinomial**	$3x - 4x^3 - 1$ Degree: **3** Leading Coefficient: **-4** Classify: **cubic, trinomial**
2. Add & Subtract Polynomials	- If negative sign between the parenthesis, change all signs. - Add or Subtract the coefficients. - Exponents stay the same.	A. $(-4a+8)+(6a-11)$ **$2a-3$** B. $(2a^2-4a+3)+(6a^2+4a-3)$ **$8a^2$**	A. $(3x^2+4x+2)-(x^2-4x+2)$ **$2x^2+8x$** B. $(2x^3+3x^2+x+2)-(x^2-x+4)$ **$2x^3+2x^2+2x-2$**
4. Find Perimeter	- Add all the sides. - Add or Subtract the coefficients. - Exponents stay the same.	2x – 8  x + 4 **$6x-8$**	A. Find perimeter of a square with a side length of (x + 7) **$4x+28$** B. If the perimeter is 44, find the value of x. **$44 = 4x + 28 \rightarrow x = 4$**
5. Multiply polynomials	- Multiply the coefficients - Add the exponents - After multiplying, add like terms	A. $(5x+2)(3x-1)$ **$15x^2+x-2$** B. $(x+3)(x^2+2x+1)$ **x^3+5x^2+7x+3**	A. $(2x+3)^2$ **$4x^2+12x+9$** B. $3x(x-2)+2(x^2-4x+1)$ **$5x^2-14x+2$**
6. Find the area.	Rectangle/Square: Multiply base times height (or length times width) Triangle: ½ times base times height	 2x + 4 **$3x^2+8x+4$**	Find the area of a rectangle a base of (x – 2) and a height of ($2x^2$ + 3x + 1) **$2x^3-x^2-5x-2$**

7. Divide Polynomials	Use synthetic division - solve for x in the 2nd set of parenthesis - only use the coefficients of the first polynomial - if an exponent is missing, use 0 as the coefficient	$(x^2-5x+6)\div(x-3)$ $x-2$	$(x^3-5x-6)\div(x-3)$ $\frac{(x-6)(x+1)}{x-3}$
8. Factor by GCF	Find the greatest common factor. Distribute to check	A. $7x^2+49x$ $7x(x+7)$ B. $6a^2b+20ab^3$ $2ab(3a+10b^2)$	A. $8p^2-12p+20$ $4(2p^2-3p+5)$ B. $20p^4-16p^3+12p^2$ $4p^2(5p^2-4p+3)$
9. Factor trinomials (last term positive)	First term: factors go in the front of each parenthesis Last term: factors go in the back of each parenthesis Multiply to check	A. $m^2-9m+14$ $(m-2)(m-7)$ B. $w^2+8w+16$ $(w+4)(w+4)$	A. $y^2-24y+144$ $(y-12)(y-12)$ B. $b^2+12b+20$ $(b+10)(b+2)$
10. Factor trinomials (last term negative)	First term: factors go in the front of each parenthesis Last term: factors go in the back of each parenthesis Multiply to check	A. y^2-y-12 $(y-4)(y+3)$ B. $m^2+3m-10$ $(m+5)(m-2)$	A. $x^2+5x-36$ $(x+9)(x-4)$ B. $w^2-14w-15$ $(w-15)(w+1)$
11. Factor binomials	Last term is always negative Follow steps above (#9 and #10)	A. y^2-64 $(y-8)(y+8)$ B. g^2-4 $(g-2)(g+2)$	A. $16m^2-81$ $(4m-9)(4m+9)$ B. $4k^2-1$ $(2k-1)(2k+1)$

Monday	Tuesday	Wednesday	Thursday	Friday
Final Exam Review	**Mid-Term for Support Class**	Review the Support Mid-Term	**Mid-Term for Math 1 Class (1st & 2nd Block)**	**Mid-Term for Math 1 Class (3rd & 4th Block)**

Study Your Unit Exams!!!