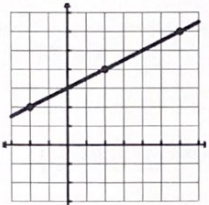
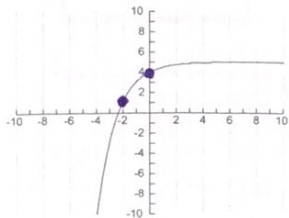
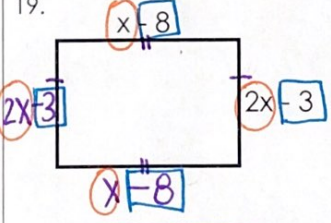
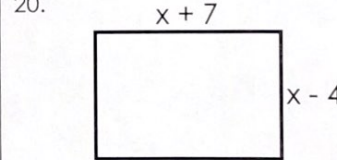
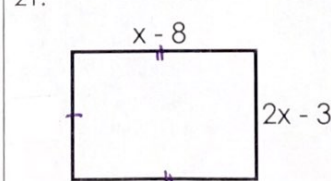
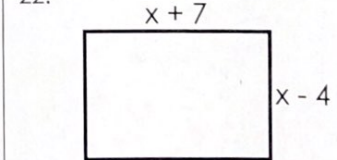


Use the following to review for you test. Work the Practice Problems on a separate sheet of paper.

What you need to know & be able to do	Things to remember	Problem	Problem
<p>Identify: Function or Not a Function</p> <p>EXPLAIN!!!!</p>	<p>Graphs: Must pass the Vertical Line Test! Points: Inputs cannot repeat!</p>	<p>1. Function or Not a Function</p> 	<p>2. Function or Not a Function $\{(3,3), (4,3), (4,4), (6,5)\}$</p> <p>not a function, because $x=4$ repeats</p>
<p>Combining Like Terms</p>	<ul style="list-style-type: none"> • Adding: add the numbers, keep variable the same. • Multiplying: multiply the numbers, adds the exponents. 	<p>3. $(8k+3) + (k+7)$</p> <p>$9k+10$</p>	<p>4. $-7(x^2+2) - (3x+1)$</p> <p>$-7x^2-14-3x-1$</p> <p>$-7x^2-3x-15$</p>
<p>Given functions, simplify the expressions.</p>	<ul style="list-style-type: none"> • Choose the correct functions. • Pay attention to where the number is if there is one. • Combine Like Terms. 	<p>5. $f(x) = x^2 + 3x - 5$</p> <p>$g(x) = 2x^2 - x + 2$</p> <p>$h(x) = 3x^3$</p> <p>6. $g(x) - f(x)$</p> <p>$x^2 - 4x + 7$</p> <p>8. $f(1) + g(-2)$</p> <p>$(1)^2 + 3(1) - 5 + 2(-2)^2 - (-2) + 2$</p> <p>$-1 + 12 = 11$</p>	<p>5. $f(x) + g(x)$</p> <p>$(x^2 + 3x - 5) + (2x^2 - x + 2)$</p> <p>$3x^2 + 2x - 3$</p> <p>7. $3h(x) - 2f(x)$</p> <p>$3(3x^3) - 2(x^2 + 3x - 5)$</p> <p>$9x^3 - 2x^2 - 6x + 10$</p> <p>9. $3f(x) + 2g(x)$</p> <p>$7x^2 + 7x - 11$</p>
<p>Evaluating both Linear and Exponential Functions</p>	<ul style="list-style-type: none"> • SHOW WORK! • Plug it in. • Sto--> • Table 	<p>10. Given, $f(x) = x^2 + x - 4$</p> <p>a. Find $f(-2) = -2$</p> <p>$(-2)^2 + (-2) - 4$</p> <p>b. Find $f(5) = 26$</p>	<p>11. $g(0) = 4$</p> <p>12. $g(-2) = 1$</p> 

<p>Write a polynomial in standard form and determine the leading coefficient.</p>	<p>Exponents decrease from left to right. The leading coefficient is the number in front of the exponent with the highest degree.</p>	<p>13. $4x^3 - 2x^5 + 12x^4$ $-2x^5 + 12x^4 + 4x^3$</p>	<p>14. $-5x + 2x^3 + 9$ $2x^3 - 5x + 9$</p>
<p>Classify a polynomial by number of terms and by degree.</p>	<p># terms: Monomial, Binomial, Trinomial Degree: Constant, Linear, Quadratic, Cubic, Quartic</p>	<p>15. $7x^3$ cubic monomial</p>	<p>16. $7x^2 - 5x + 6$ quadratic trinomial</p>
<p>Multiply polynomials</p>	<p>Distribute all of the terms.</p>	<p>17. $(2n-3)(6n+1)$ $12n^2 + 2n - 18n - 3$ $12n^2 - 16n - 3$</p>	<p>18. $(4n-6)^2$ $(4n-6)(4n-6)$ $16n^2 - 48n + 36$</p>
<p>Find the perimeter of a rectangle when the sides are polynomials</p>	<p>Add all of the sides</p>	<p>19.  $6x - 22$</p>	<p>20.  $4x + 6$</p>
<p>Find the area of a rectangle when the sides are polynomials</p>	<p>Multiple length by width.</p>	<p>21.  $(x-8)(2x-3)$ $2x^2 - 3x - 16x + 24$ $2x^2 - 19x + 24$</p>	<p>22.  $x^2 + 3x - 28$</p>