

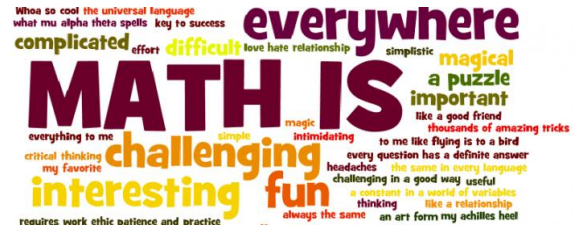
Unit 1: Algebra Skills

Topic: Simplifying Expressions

Objective: SWBAT use their knowledge of algebra to simplify various expressions.

Warm Up #1:

1) What do you think are your strengths/weaknesses in math?



2) What do you plan on doing this year in order to be successful?



Assignment: Take some time to explore my website *calcnerd.com* and use the information you find there to complete the classroom contract. Then you and your parent/guardian must sign the contract and return it to me by Friday September 9. If you don't have access to a computer at home you can use your cell phone, Ipad or other tablet, the library, or you can stay with me afterschool and use my computer.

Now, let's do some math!!

Problem Set #1: Use your knowledge of algebra to complete each of the following problems.



Some of these may be tricky. Don't panic, do what you can and we'll take it from there 😊

<p>1) Multiply: $3x(x + 2)^2$</p>	<p>2) Multiply: $(2x + y)(w - z)$</p>
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3) Simplify: $x^2 - (x + 2)(x + 3) - (1 - x)^2$

4) Multiply: $(3x^2 + x^3) \left(\frac{4}{x} - 2x\right)$

5) Divide: $\frac{(1+x^2)^2 - x^2(1+x^2)^3}{1+x^2}$



6) Simplify: $7 - x^2 - 7(1 - x^2) - (1 - x)^2$

7) Multiply: $2x(1 - 2y)^2$

8) Simplify: $x^2(y + 1)^2 - y^2(x + 1)^2$

9) Divide: $\frac{(4x + 1)^2}{x}$

10) Multiply and Simplify: $y^{-3}(y^2 - 4y)^2$