

# Math Notes

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January 7, 2024

## 1 Notes

- algebra is a lot like arithmetic, it follows the rules of arithmetic and uses the same four main operations that arithmetic is built on
- the difference between algebra and arithmetic is that algebra introduce the element of the unknown
- algebraic equation is a mathematical statement that 2 things are equal
- one of the main goals of algebra is solving equations
- solving equations is to figure out what the unknown values in equations are
- multiplication in algebra is the default operation which means that multiplication is implied

## 2 Introduction

Your introductory text goes here.

## 3 Theorems and Proofs

**Theorem 3.1.** *This is a sample theorem.*

*Proof.* This is a sample proof. □

## 4 Definitions and Examples

**Definition 4.1.** *A Term is a mathematical expression that are made of two different parts (a number part and a variable part), in a term the number part and the variable part is multiplied together, the number part is called the coefficient.*

*it's conventional to write the number part first then the variable part.*

*a term is  $6x$*

*a constant term is 6*

**Definition 4.2.** *A Polynomial is a series of terms that are joined together by addition or subtraction.*

*Specific names for Polynomials are:-*

- *monomial: 1 term*
- *binomial: 2 terms*
- *trinomial: 3 terms*
- *polynomial: more than 3 terms*

*it's also common to use the word "polynomial" for 2 or 3 terms*

**Definition 4.3.** *The degree of a term is the power of its variable part  
The degree of a polynomial is the highest power of its variable parts*

- *monomial: 1 term*
- *binomial: 2 terms*
- *trinomial: 3 terms*
- *polynomial: more than 3 terms*

*it's also common to use the word "polynomial" for 2 or 3 terms*

**Example 4.4.**

## 5 Conclusion

Your concluding thoughts go here.