Cornell Notes	**Topic/Objective:** Identifying Terms, Factors, and Coefficients	**Name:**
	Standard: MGSE9-12.A.SSE.1 Interpret expressions that represent a quantity in terms of its context.	**Class/Period:**
		Date:

Essential Question: How can I identify terms, factors, and coefficients?

Questions:

Notes: INTRODUCTION

Thoughts or feelings in language are often conveyed through expressions; however, mathematical ideas are conveyed through _____. Algebraic expressions are mathematical statements that include numbers, operations, and variables to represent a number or quantity. _____ are letters used to represent values or unknown quantities that can change or vary. One example of an algebraic expression is $3x - 4$. Notice the variable, x.

Key concepts

- Expressions are made up of _____. A term is a number, a variable, or the product of a number and variable(s). An addition or subtraction sign separates each term of an expression.
- In the expression $4x^2 + 3x + 7$, there are 3 terms:
- The _____ of each term are the numbers or expressions that when multiplied produce a given product. In the example above, the factors of $4x^2$ are The factors of $3x$ are
- 4 is also known as the _____ of the term $4x^2$. A coefficient is the number multiplied by a variable in an algebraic expression. The coefficient of $3x$ is
- The term $4x^2$ also has an _____. Exponents indicate the number of times a factor is being multiplied by itself. In this term, 2 is the exponent and indicates that *x* is multiplied by itself 2 times.
- Terms that do not contain a variable are called _____ because the quantity does not change. In this example, 7 is a constant.

Expression	$4x^2 + 3x + 7$		
Terms	$4x^2$	$3x$	7
Factors	4 and x^2	3 and x	
Coefficients	4	3	
Constants			7

Summary:

Questions:	Notes:
	Terms with the same variable raised to the same exponent are called _____. In the example $5x + 3x - 9$, $5x$ and $3x$ are like terms. Like terms can be combined following the _____ by evaluating grouping symbols, evaluating exponents, completing multiplication and division, and completing addition and subtraction from left to right. In this example, the sum of $5x$ and $3x$ is $8x$.
	Guided Practice
	Example 1
	Identify each term, coefficient, constant, and factor of $2(3 + x) + x(1 - 4x) + 5$.
	Example 2
	A smartphone is on sale for 25% off its list price. The sale price of the smartphone is $149.25. What expression can be used to represent the list price of the smartphone? Identify each term, coefficient, constant, and factor of the expression described.
	Example 3
	Helen purchased 3 books from an online bookstore and received a 20% discount. The shipping cost was $10 and was not discounted. Write an expression that can be used to represent the total amount Helen paid for 3 books plus the shipping cost. Identify each term, coefficient, constant, and factor of the expression described.

Summary: