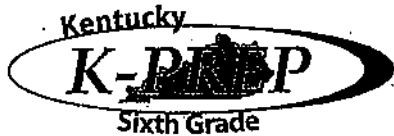


Chapter 8

Introduction to Algebra



This chapter covers the following KCAS 6 standards:

Expressions and Equations	6.EE.2, 6.EE.4, 6.EE.6
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8.1 Algebra Vocabulary (DOK 2)

Algebra is the branch of mathematics that uses a combination of letters, numbers, and operations (addition, subtraction, multiplication, and division) to show how two or more things are related to each other. Solving algebra problems can be made simple if you learn the language and rules. Algebra can also be used to solve problems that arise in real life. The table below shows the basic vocabulary for solving algebra problems.

<u>Vocabulary Word</u>	<u>Example</u>	<u>Definition</u>
expression	$4x + 3$	a mathematical combination of numbers, variables, and operations
variable	$4x$ (x is the variable)	a letter that can be replaced by a number
coefficient	$4x$ (4 is the coefficient)	a number multiplied by a variable or variables
term	$5x^2 + x - 2$ ($5x^2$, x , and 2 are terms)	numbers or variables separated by + or - signs
constant	$5x + 2y + 4$ (4 is a constant)	a term that does not have a variable
sentence	$2x = 7$ or $5 \leq x$	two algebraic expressions connected by =, \neq , $<$, $>$, \leq , \geq , or \approx
equation/equality	$4x = 8$	a sentence with an equal sign
inequality	$7x < 30$ or $x \neq 6$	a sentence with one of the following signs: \neq , $<$, $>$, \leq , \geq , or \approx
solution	if $3x = 9$, then $x = 3$	numbers that will make a sentence true
base	6^3 (6 is the base)	the number used as a factor
exponent	6^3 (3 is the exponent)	the number of times the base is multiplied by itself