

# Algebra 1

Chapter 1

Section 1-1

May 13-10:02 PM

## Variables

A variable is a symbol (usually a letter) that represents the value of an unknown quantity

Examples:  $x - 3$  or  $4x$

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## Key Phrases

### Addition

Sum  
More than

### Subtraction

Difference  
Less than  
Less

### Multiplication

Product  
Times

### Division

Quotient

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## *Less than* vs. *Less*

seven less a number n

$$7 - n$$

Same  
order

five less than p

$$p - 5$$

switch  
order

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## Writing variable expressions two ways:

Algebraic Expression	Word Phrase
$\frac{y}{4} \rightarrow (y \div 4)$	The quotient of <u>y</u> and <u>4</u>
$9 - 3k$	The <u>difference</u> of <u>9</u> and <u>3</u> times <u>k</u>
$11x - 4$	11 times x less 4
$19(n + 4)$	The product of 19 and <u>4</u> more than n

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## Writing variable expressions two ways:

Word Phrase	Algebraic Expression
The quotient of three and k	$\frac{3}{k}$ or $3 \div k$
The <u>product</u> of seven and a <u>number h</u>	$7h$
Nine <u>less than</u> the <u>product</u> of a number and five	$5n - 9$ or $5x - 9$
The <u>quotient</u> of seven and <u>three less than t</u>	$\frac{7}{t-3}$

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The table shows the relationship between the number of cartons of eggs that a farmer sells and the number of total eggs that were sold. Write an algebraic expression that gives the rule for finding the number of eggs sold in  $c$  cartons

$$\begin{aligned}1 \times 6 &= 6 \\2 \times 6 &= 12 \\3 \times 6 &= 18 \\4 \times 6 &= 24 \\c \times 6 &= 6c\end{aligned}$$

$$6c$$

cartons	eggs
1	6
2	12
3	18
4	24
$c$	?

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