

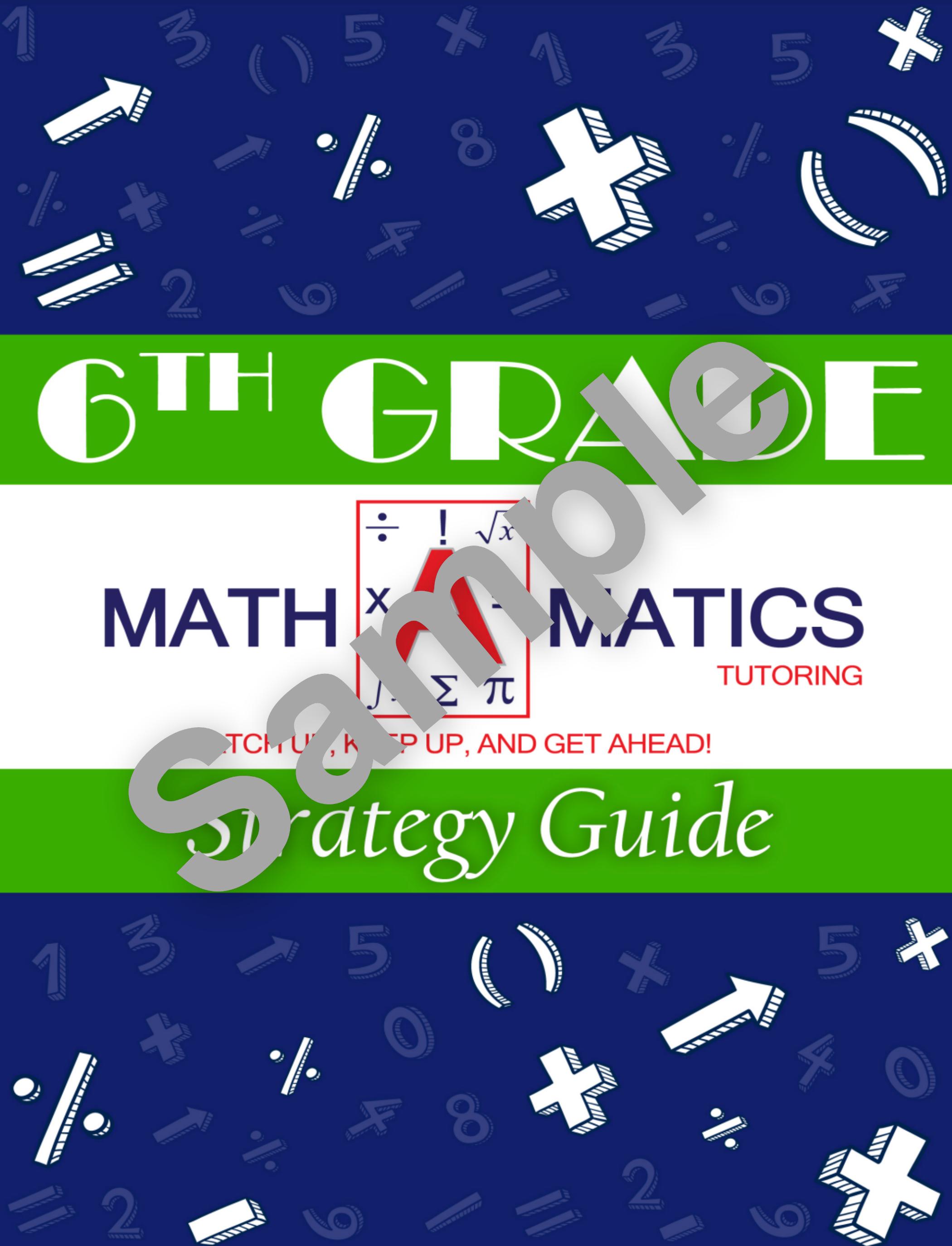
# 6TH GRADE

## MATH MATICS

TUTORING

STAY UP TO DATE, KEEP UP, AND GET AHEAD!

## Strategy Guide



# Table of Contents

## The Number System

<b>Adding and Subtracting Decimals.....</b>	<b>1</b>
<b>Estimating Products of Decimals .....</b>	<b>2</b>
<b>Multiplying.....</b>	<b>3</b>
Whole Numbers by Whole Numbers .....	3
Whole Numbers by Decimals.....	4
Decimals by Decimals.....	5
Whole Numbers by Fractions .....	6
Fractions by Fractions .....	7
Mixed Numbers by Fractions.....	8
Mixed Numbers by Mixed Numbers.....	9
<b>Division.....</b>	<b>10</b>
Whole Numbers by Whole Numbers .....	10
With a Decimal Quotient.....	11
Whole Numbers by Decimals.....	12
Decimals by Whole Numbers.....	13
Decimals by Decimals.....	14
Fractions .....	15
Mixed Numbers by Fractions.....	16
Fractions by Mixed Numbers.....	17
<b>Converting Units.....</b>	<b>18</b>
<b>Basic Integers.....</b>	<b>20</b>
<b>Comparing and Ordering Integers.....</b>	<b>21</b>
<b>Absolute Value .....</b>	<b>22</b>

# Table of Contents

Comparing and Ordering Rational Numbers .....	23
<b>Expressions and Equations</b>	
Order of Operation .....	24
Exponents .....	25
Evaluating Algebraic Expressions .....	26
Writing Algebraic Expressions.....	27
Properties of Operations .....	28
Evaluating Equations.....	29
One-Step Equations .....	30
Addition .....	30
Subtraction .....	31
Multiplication.....	32
Division.....	33
Functions.....	34
Writing an Equation from a Function .....	35
Graphing Functions .....	36
Writing Inequalities .....	37
Solving Inequalities .....	38
Addition .....	38
Subtraction .....	39
Multiplication.....	40
Division.....	41
<b>Ratios and Proportions</b>	
Unit Rates .....	42
Converting Fraction-Decimal-Percent.....	43

# **Table of Contents**

Percent of a Number.....	44
<b>Statistics and Probability</b>	
Mean, Median, Mode and Range.....	45
Types of Graphs.....	46
Frequency Table.....	46
Histogram.....	47
Box Plot .....	48
Data Distribution.....	49
<b>Geometry</b>	
Area.....	50
Parallelogram.....	50
Triangle .....	51
Trapezoid .....	52
Volume.....	53
Surface Area.....	54
Rectangular Prism.....	54
Triangular Prism.....	55
Cylinder.....	56

# **Division**

## **With a Decimal Quotient**

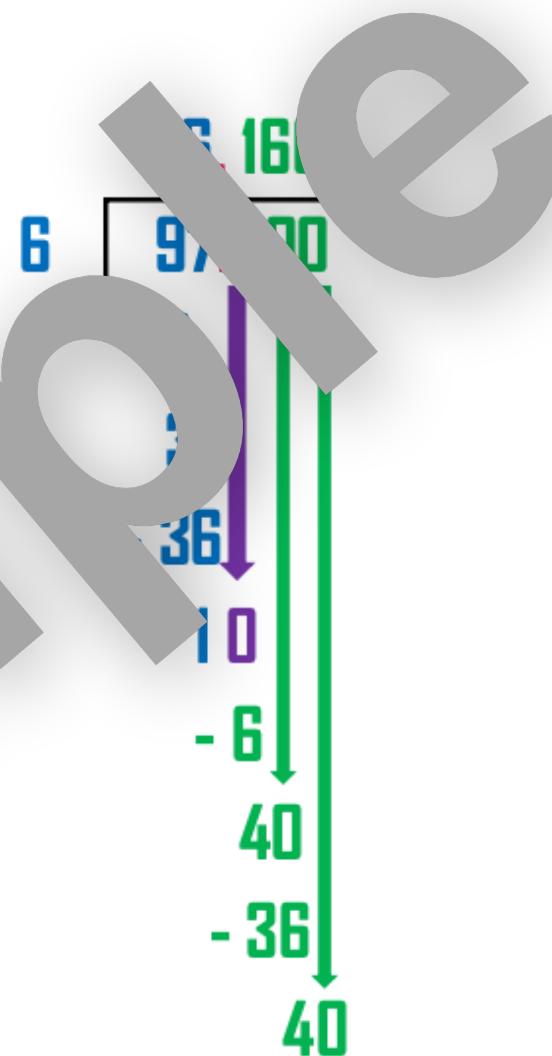
When dividing, sometimes we have to add a decimal to get the correct answer.

## Let's divide 97 by 6

**Step 1: Divide the two numbers until you have a remainder.**

**Step 2: Place a decimal after the quotient and dividend.**

**Step 3: Add a zero after the decimal point to bring it down.**



**16.166 rounded to the nearest**

**hundred is 16.17**

## Step 4: Divide. Continue to add zeros as needed to round to the nearest hundredth.

# Comparing and Ordering Integers

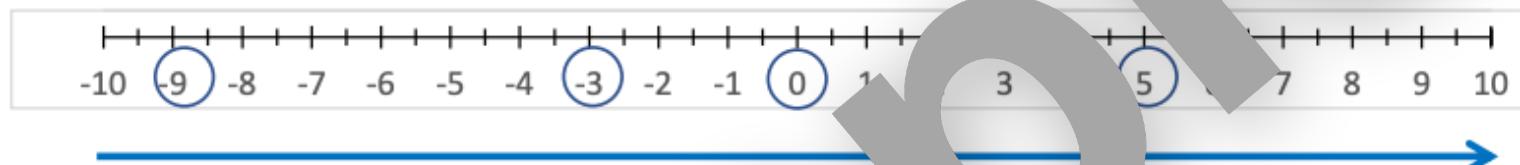


Negative

Positive

Example: Order from least to greatest.

1.  $-9, 0, 5, -3$  select the numbers from left to right



2.  $-4, 0, 8, -7$  select the numbers from left to right

~~-9, -3, 0, 5~~

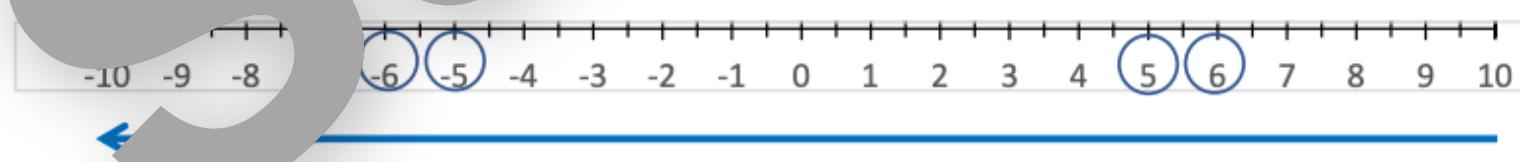
~~-7, -4, 0, 8~~



Example: Order from greatest to least.

- $-5, 6, 5, -6$  select the numbers from right to left

~~6, 5, -5, -6~~



2.  $-6, -5, -4, 3$  select the numbers from right to left

~~3, -4, -5, -6~~

