

## Math Operations Grade 6

Developed by teachers and mathematics specialists, **Math Operations Grade 6** provides the strategies, skills and practice your students need to develop strong mathematics proficiency. The program teaches the major concepts in grade 6 level operations. Helpful clues and examples, along with exciting audio-visual content, ensure that students of all learning styles can use the software independently. **Math Operations Grade 6** is an effective and engaging way to improve student performance with all four mathematical operations.

#### **Targeted Skills**

- Addition: 5-6 digit addition, addition with negatives, missing term problems, word problems
- Subtraction: 5-6 digit subtraction, subtraction with negatives, missing term problems, word problems
- Multiplication: multiplication facts, multi-digit by two digit multiplication, multiplication with negatives, multiples, least common multiples, exponents, word problems
- Division: division facts, long division (multi-digit by multi-digit), factors, prime/composite numbers, greatest common factors, word problems

### **Teacher Dashboard**

The Teacher Dashboard tracks student progress throughout each program and records the percentage score for every activity completed. This feature provides an overview of how well a student is progressing and allows the teacher to identify strengths and weaknesses.

- Records students' results automatically as they work.
- Prints reports quickly and easily for sharing with parents and staff.
- Provides summary reports by subject or detailed reports by activity.
- Allows teachers to print reports for individual students or an entire class.
- Stores student marks in one central location for all programs.

### **Program Outline**

The program is broken down into 4 main units, which can all be accessed from the main menu. On the following pages, each of these different units are broken down. The main menu units are:

- 1. Addition
- 2. Subtraction
- 3. Multiplication
  - 4. Division

#### 1 - Addition

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Five Digit Addition (two activities)	Add two 5-6 digit numbers together. One activity leads the students through the procedure. One activity lets students solve problems on their own with pencil and paper.	5-6 digit addition 2 terms
Six Digit Addition (two activities)		
Addition Challenge	5-6 digit addition problems.	
<b>More Than Two</b> (two activities)	Add more than two 5-6 digit numbers together. One activity leads the students through the procedure. One activity lets students solve problems on their own with pencil and paper.	5-6 digit addition 2+ terms
What's Missing?	Find the missing term in a missing term equation.	basic addition-based algebra
Negative Numbers	Answer addition problems involving negative numbers.	understand the role of negative numbers in addition
Word Problems	Solve mathematical word problems requiring 5-6 digit addition solutions.	apply mathematical concepts to real-world applications 5-6 digit addition 2 terms

#### 2 - Subtraction

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Five Digit Subtraction (2 activities)	Subtract one 5-6 digit number from another. One activity leads the students through the procedure. One activity lets students solve problems on their own with pencil and paper.	5-6 digit subtraction 2 terms
Six Digit Subtraction (2 activities)		
Subtraction Challenge	5-6 digit subtraction problems.	
Missing Term	Find the missing term in a missing term equation.	basic subtraction-based algebra
What's Missing?	Find the missing digits in a subtraction problem.	
Negative Numbers I	Answer subtraction problems involving negative numbers.	understand the role of
Negative Numbers II		negative numbers in subtraction
Subtraction Word Problems	Solve mathematical word problems requiring 5-6 digit subtraction solutions.	apply mathematical concepts to real-world applications 5-6 digit subtraction 2 terms

# 3 - Multiplication

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Multiplication Facts	Recall multiplication facts	multiplication facts to 12
First Five Multiples	Enter the first five multiples of a number.	multiples of numbers up to 144
Click on the Multiples	Click on the multiples of a given number.	
First Three Common Multiples	Find the common multiples of a given pair of numbers.	find common multiples of a given pair of numbers
Least Common Multiple		
Multiplication I		multiply 2-3 digits by 1-2 digits
Multiplication II	Multiply 2-3 digits by two digits.	
Multiplication With Negatives	Answer multiplication problems involving negative numbers.	understand the role of negative numbers in multiplication
More than Two Factors	Multiply more than two factors together.	multiply more than two 1-2 digit factors together
Introducing Exponents	Click on the exponent that is equal to the equation you see.	
Exponents I	Click on the exponent that is equal to the number you see.	understand meaning and value of exponents
Exponents II	Write the exponent as a multiplication problem, then figure out the answer.	
Multiplication Word Problems	Solve mathematical word problems requiring multi-digit by 1-2 digit solutions.	apply mathematical concepts to real-world applications multiply 2-3 digits by 1-2 digits

#### 4 - Division

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Division Facts	Recall division facts.	division facts from 144
Long Division I (two activities)	Solve 3-4 digit by 1-2 digit long division problems with remainders	divide 3-4 digits by 1-2 digits with and without remainders
Long Division II (two activities)		
Division with Negatives	Answer division problems involving negative numbers.	understand the role of negative numbers in division
Click on the Factors I		identify factors of numbers up to 144
Click on the Factors II	Click on all of the factors of a given number.	
Enter the Factors		
Greatest Common Factor I	Find the greatest common factor for a given pair of numbers.	find greatest common factor of a given pair of numbers
Greatest Common Factor II		
Prime or Composite I	Identify whether given numbers are prime or composite.	understand difference between composite and prime numbers
Word Problems I	Solve mathematical word problems requiring 3-4 digits by 1-2 digit solutions.	apply mathematical concepts to real-world applications
		divide 3-4 digits by 1-2 digits with and without remainders