



### Math Operations Grade 6

In **Math Operations Grade 6**, students are able to develop and practice their skills with the principal mathematical operations - addition, subtraction, multiplication and division. The program features 48 activities and countless number questions and word problems. To allow students to build their skills sequentially, the difficulty of the questions in each unit slowly increases. To capture the student's interest, **Math Operations Grade 6** uses hundreds of colorful graphics, animations, sound effects and music. These rewards will motivate the students to continue learning with the software.

### Targeted Skills

- Addition - up to 6 digit by 6 digit, adding with negatives, adding more than two numbers, missing term, word problems
- Subtraction - up to 6 digit from 6 digit, subtracting with negatives, missing term, word problems
- Multiplication - facts to 12, common multiples, multiplying with negatives, 2-3 digits by 1-2 digit, more than two factors, exponents, word problems
- Division - facts from 144, dividing with negatives, long division (3-4 digits by 1-2 digit), greatest common factors, prime or composite numbers, word problems

### Marks Manager

The Marks Manager 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 - 10 activities
2. Subtraction - 10 activities
3. Multiplication - 14 activities
4. Division - 14 activities

## 1. Addition

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
<b>Five Digit Addition</b> (2 activities)	Answer addition problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Add two 5-6 digit numbers.
<b>Six Digit Addition</b> (2 activities)		
<b>Addition Challenge</b>	Answer addition problems without digit-by-digit help. This requires students to line the digits up and carry digits on their own.	Correctly set up addition problems. Add two 5-6 digit numbers.
<b>Negative Numbers</b>	Answer basic addition problems with negative numbers.	Add with negative numbers.
<b>More Than Two</b> (2 activities)	Answer multi-term addition problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Add more than two 5-6 digit numbers.
<b>What's Missing?</b>	Find the missing term in a basic addition problem.	Perform basic algebra with simple addition problems.
<b>Addition Word Problems</b>	Apply addition skills in basic real-world addition word problems.	Add two 5-6 digit numbers. Add more than two 5-6 digit numbers.

2. Subtraction

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
<b>Five Digit Subtraction</b> (2 activities)	Answer subtraction problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Subtract two 5-6 digit numbers.
<b>Six Digit Subtraction</b> (2 activities)		
<b>Subtraction Challenge</b>	Answer subtraction problems without digit-by-digit help. This requires students to line the digits up and carry digits on their own.	Correctly set up subtraction problems. Subtract two 5-6 digit numbers.
<b>Negative Numbers I</b>	Answer basic addition problems with negative numbers.	Subtract with negative numbers.
<b>Negative Numbers II</b>		
<b>Missing Term</b>	Find the missing term in a basic subtraction problem.	Perform basic algebra with simple subtraction problems.
<b>What's Missing?</b>	One by one, enter missing digits from a given subtraction problem.	
<b>Subtraction Word Problems</b>	Apply subtraction skills in basic real-world subtraction word problems.	Subtract two 5-6 digit numbers.

3. Multiplication

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
<b>Multiplication Facts</b> (2 activities)	Quickly answer the multiplication fact questions.	Recall multiplication facts to 12 x 12.
<b>First Five Multiples</b>	Enter the first five multiples of a given number.	Understand and apply the concept of multiples.
<b>Click on the Multiples</b>	Click on the multiples of a given number.	
<b>First Three Common Multiples</b>	Enter the first three common multiples of two given numbers.	Understand and apply the concept of common multiples.
<b>Least Common Multiple</b>	Find the least common multiple of two given numbers.	Understand and apply the concept of least common multiples.
<b>Multiplication With Negatives</b>	Answer basic multiplication problems with negative numbers.	Multiply with negative numbers.
<b>Multiplication I</b>	Answer multiplication problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Multiply multi digit numbers by 2 digits.
<b>Multiplication II</b>		
<b>More Than Two Factors</b>	Answer multi-term multiplication problems without digit-by-digit help. This requires students to line the digits up and carry digits on their own.	Multiply more than two numbers.
<b>Introducing Exponents</b>	Click on the exponent that is equal to the equation you see.	Understand and apply the concept of exponents.
<b>Exponents I</b>	Click on the exponent that is equal to the number you see.	
<b>Exponents II</b>	First write this exponent as a multiplication problem, then figure out the answer.	
<b>Multiplication Word Problems</b>	Apply multiplication skills in basic real-world multiplication word problems.	Multiply multi digit numbers by 2 digits.

4. Division

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
<b>Division Facts</b> (2 activities)	Quickly answer the division fact questions without remainders.	Recall division facts from 144.
<b>Division With Negatives</b>	Answer basic division problems with negative numbers.	Divide with negative numbers.
<b>Long Division I</b> (2 activities)	(1st activity) Answer division problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Divide 3-4 digit numbers by 1-2 digits.
<b>Long Division II</b> (2 activities)	(2nd activity) Answer division problems without digit-by-digit help. This requires students to line the digits up and carry digits on their own.	
<b>Click on the Factors I</b>	Click on all of the factors of a given number.	Understand and identify the factors of numbers from 144.
<b>Click on the Factors II</b>		
<b>Enter the Factors</b>		
<b>Greatest Common Factor I</b>	Enter the greatest common factor of two given numbers.	Understand and identify greatest common factors.
<b>Greatest Common Factor II</b>		
<b>Prime or Composite?</b>	Is the number you see prime or composite?	Identify prime and composite numbers.
<b>Division Word Problems</b>	Apply division skills in basic real-world multiplication word problems.	Recall division facts from 144. Divide 3-4 digit numbers by 1 digit.