

MathFest Tested Skills

First through Eighth Grade

(Note: Advanced students will be exposed to content at next higher grade)

First Grade MathFest Skills

1. Compare sets using terms greater than, less than, and equal
2. Exchange equivalent quantities of coins to purchase items up to five dollars
3. Exchange equivalent quantities of bills (\$1, \$5, \$10, \$20) and count out a combination needed to purchase items less than fifty dollars
4. Name value of coins in groups of two and three coins together
5. Understanding place value up to 100s
6. Apply addition and subtraction to 2 digit numbers with regrouping
7. Solve word problems involving addition and subtraction to 100 with regrouping.
8. Tell time to the nearest fifteen minutes
9. Interpret tally marks, pictures graphs and bar graphs
10. Identify, label and relate fractions as equal parts

Second Grade MathFest Skills

1. Interpret picture graphs, Venn diagrams, and bar graphs.
2. Represent problem solving situations using addition, subtraction or multiplication
3. Model, identify, label and compare fractions
4. Tell time to the nearest five minutes
5. Understand place value to 1,000s
6. Count back change and use decimal notation and the dollar and cent symbols to represent a collection of coins and currency.
7. Use mental math to solve problems.
8. Add and subtract two whole numbers up to three digits with regrouping.
9. Estimate solutions.

Third Grade MathFest Skills

1. Identify place values from tenths to ten thousands
2. Use the properties addition and subtraction to compute and verify results of computations
3. Solve problems requiring addition and subtraction
4. Use multiplication to 10×10
5. Solve problems requiring multiplication
6. Divide a 2 and 3-digit number by a 1-digit divisor
7. Solve problems requiring division
8. Understand a decimal fraction and common fraction
9. Model addition and subtraction of decimal fractions and common fractions
10. Solve problems by organizing and displaying data in bar graphs and tables
11. Construct and interpret bar graphs using scale increments of 1,2,5, and 10.
12. Add and subtract decimal fractions and common fractions with like denominators

Fourth Grade MathFest Skills

1. Add and subtract decimal fractions and common fractions with common denominators.
2. Identify place value names and place from hundredths through one million
3. Round numbers to the nearest ten, hundred, or thousand
4. Solve problems involving multiplication of 2-3 digit number by 1-2 digit numbers
5. Solve problems involving division by 2-digit numbers
6. Add and subtract both one and two digit decimal fractions
7. Multiply and divide both one and two digit decimal fractions by whole numbers
8. Add and subtract fractions and mixed numbers with common denominators
9. Convert and use mixed numbers and improper fractions

Fifth Grade MathFest Skills

1. Multiply and divide whole numbers and decimal fractions
2. Add and subtract decimal fractions
3. Add and subtract common fractions with like denominators
4. Understand place value
5. Find equivalent fractions and simplify fractions
6. Add and subtract common fractions and mixed numbers with unlike denominators
7. Estimate products and quotients
8. Analyze data presented in a graph
9. Solve mathematics problems
10. Investigate algebraic expressions
11. Find area and perimeter of geometric figures

Sixth Grade MathFest Skills

1. Add and subtract common fractions and mixed numbers with unlike denominators such as 2,3,4,5,6,8, 10 and 12
2. Determine the greatest common factors and least common multiples for a set of numbers
3. Add and subtract fractions and mixed numbers with unlike denominators
4. Multiply and divide fractions and mixed numbers
5. Solve problems involving fractions, decimals, and percents
6. Find length, perimeter, area and volume
7. Solve problems involving scale drawings
8. Predict probability of a given event
9. Use pictographs, histograms, bar graphs, line graphs, circle graphs, and line plots.

Seventh Grade MathFest Skills

1. Add, subtract, multiply, and divide positive and negative rational numbers
2. Solve problems using rational numbers
3. Simplify and evaluate algebraic expressions using commutative, associative, and distributive properties
4. Add and subtract linear expressions
5. Solve equations and interpret the solution of a given problem
6. Analyze and draw conclusions about data, and use data to describe the relationship between two variables.
7. Analyze data using appropriate graphs, including pictographs, histograms, bar graphs, line graphs, circle graphs, etc.
8. Solve problems that arise in mathematics and in other contexts
9. Create and use representations to organize, record, and communicate mathematical ideas
10. Construct frequency distributions

Eighth Grade MathFest Skills

1. Find square roots of perfect squares
2. Estimate square roots of positive numbers
3. Simplify expressions containing integer exponents
4. Solve problems involving square roots, exponents, and scientific notation
5. Simplify and evaluate algebraic expressions
6. Solve algebraic equations
7. Solve inequalities
8. Solve problems involving linear relationships
9. Find the probability of events
10. Solve problems that arise in mathematics and in other contexts
11. Develop and evaluate mathematical arguments and proofs
12. Simplify, add, subtract, multiply, and divide expressions.