Acadience™ Math Scope and Sequence

Acadience Math–Kindergarten Early Numeracy

Measure	Description
Beginning Quantity Discrimination	BQD assesses a student's ability to discriminate between two quantities. The student says the number of the larger set of dots. The sets of dots range between 1 and 10. It is also an indirect measure of subitizing, the ability to instantly judge the number associated with a group of items.
Next Number Fluency	NNF assesses a student's ability to extend the counting sequence. The examiner says a number, begins the stopwatch immediately after prompting with the first number, and continues providing the student with random numbers between 1 and 99, for 1 minute. The student is to say the number that comes after the number provided by the examiner.
Number Identification Fluency	NIF assesses a student's ability to orally identify the numerals 1 through 99.

Acadience Math–First Grade Early Numeracy

Measure	Description
Next Number Fluency	NNF assesses a student's ability to extend the counting sequence. The examiner says a number, begins the stopwatch immediately after prompting with the first number, and continues providing the student with random numbers between 1 and 99, for 1 minute. The student is to say the number that comes after the number provided by the examiner.
Number Identification Fluency	NIF assesses a student's ability to orally identify the numerals 1 through 99.
Advanced Quantity Discrimination	AQD assesses a student's ability to discriminate between two given quantities by stating the larger of the two numbers. The quantities range from 1 to 99.
Missing Number Fluency	MNF assesses a student's ability to extend a counting sequence counting by 1s, 5s, and 10s by having the student state the missing number out of a sequence of four numbers.

Acadience Math–First Grade Computation

Problem #	Problem Description
1, 11	Add 0 or 1 to a one-digit number.
2, 15, 20, 22	Add two one-digit numbers, excluding 0 and 1.
3, 13	Subtract a one-digit number from a two-digit number (within 20) resulting in a difference of 11 or more, without renaming.
4, 10, 21, 24	Subtract a one-digit number from a one-digit number, excluding 0 and 1 in the subtrahend.
5, 17	Subtract a one-digit number from a two-digit number (within 20), resulting in a difference of 9 or less.
6, 18	Subtract 0 or 1 from a one-digit number.
7, 12	Add a two-digit and a one-digit number, with renaming, resulting in a sum of 20.
8, 14	Subtract a one-digit number from 20, with renaming.
9, 16, 19, 23	Add a two-digit and a one-digit number, without renaming, resulting in a sum of 20 or less.

Acadience Math–Second Grade Computation

Problem #	Problem Description
1	Add two one-digit numbers, excluding 0 and 1.
2, 13	Add a two-digit and a one-digit number, without renaming, resulting in a sum of 100 or less.
3, 14	Subtract a one-digit number from a two-digit number of 20 or more, with renaming.
4, 12, 18	Add two two-digit numbers, with renaming from ones to tens, resulting in a sum of 100 or less.
5	Add four two-digit numbers, with renaming from ones to tens, resulting in a sum of 100 or less.
6	Subtract a one-digit number from a one-digit number excluding 0 and 1 in the subtrahend.
7, 15, 19	Add two two-digit numbers, without renaming, resulting in a sum of 100 or less.
8, 20	Subtract a two-digit number from a two digit number of 20 or more, with renaming.
9, 16	Add a two-digit and a one-digit number, with renaming from ones to tens, resulting in a sum of 100 or less.
10, 17	Subtract a one- or two-digit number from a two-digit number, without renaming.
11	Subtract a one-digit number from a two-digit number (within 20), resulting in a difference of 9 or less.

Acadience Math–Second Grade Concepts and Applications

Problem #	Problem Description
1	Determine the total number of circles and squares.
2	Determine the number of shares (varying between 2 and 4) into which a circle or rectangle is divided.
3	Compare two three-digit whole numbers.
4	Determine the length of a line in inches.
5	Represent and solve problems with two-step addition.
6	Transfer the time from a digital clock to an analog clock with times set at 5-minute increments.
7	Represent and solve problems involving one-step addition with numbers between 2 and 9.
8	Determine how much shorter or longer, in inches, one object is than another.
9	Identify the target shape from a group of shapes that include a triangle, quadrilateral, pentagon, hexagon, and cube.
10	Subtract/add a two-digit number from/to a three-digit number, resulting in a three-digit difference/sum.
11	Solve one-step addition problems that determine the length of two objects together.
12	Represent and solve problems involving one-step subtraction with a given formula.
13	Determine place value by identifying the number in the ones place and tens place for a three-digit whole number.
14	Transfer the time from an analog clock to a digital clock with times set at 5-minute increments.
15	Represent and solve problems involving two-step subtraction.
16	Add three different coin amounts together resulting in a total amount of money under $1.

Acadience Math–Third Grade Computation

Problem #	Problem Description
1	Add two two-digit numbers, without renaming, resulting in a sum of 100 or less.
2	Add two two- or three-digit numbers, without renaming, resulting in a sum of 1000 or less.
3	Multiply a one-digit number by a one-digit number, resulting in a product of 51 or more.
4	Multiply a one-digit number by 0 or 1.
5, 22	Multiply a one-digit number by a two-digit number, without renaming, resulting in a product of less than 100.
6	Multiply a one-digit number by a two-digit number, with renaming, resulting in a product of less than 100.
7, 20	Multiply a one-digit number by a one-digit number, resulting in a product between 21 and 50.
8	Subtract a two- or three-digit number from a three-digit number, without renaming.
9, 24	Divide a one-digit dividend by a one-digit divisor, resulting in a one-digit quotient and no remainder.
10	Subtract a one- or two-digit number from a two-digit number, without renaming.
11	Add two two-digit numbers, with renaming from ones to tens, resulting in a sum of 100 or less.
12, 19	Divide a two-digit dividend by a one-digit divisor, resulting in a one-digit quotient and no remainder.
13, 25	Multiply a one-digit number by a one-digit number, resulting in a product of 20 or less.
14, 21	Add two two- or three-digit numbers, with renaming from ones to tens and tens to hundreds, resulting in a sum of 1000 or less.
15	Multiply a one-digit number by a two-digit multiple of 10.
16, 23	Subtract a two- or three-digit number from a three-digit number, with renaming from tens to ones and hundreds to tens.
17	Subtract a two-digit number from a two-digit number of 20 or more, with renaming.
18	Multiply a one-digit number by itself.

Acadience Math–Third Grade Concepts and Applications

Problem #	Problem Description
1	Transfer the time from an analog clock to a digital clock.
2	Determine the fraction of shaded parts in a given shape.
3	Round three-digit whole numbers to the nearest 10 and nearest 100.
4	Represent and solve problems involving one-step multiplication with a given formula.
5	Compare sets of fractions with like denominators.
6	Solve one-step single-digit addition problems that involve measurements of liquid volumes or object masses.
7	Represent and solve problems involving one-step multiplication with numbers between 2 and 9.
8	Write the fraction for the whole number.
9	Use graphical information to solve a one-step addition or subtraction problem.
10	Represent and solve problems involving one-step division with a single-digit divisor and a double-digit dividend.
11	Determine where a fraction with a denominator of one is located on a number line.
12	Add or subtract one double-digit and one single-digit amount involving measurement of liquid volumes or object masses.
13	Solve two-step problems involving addition and/or subtraction.
14	Determine the area of a rectangle.
15	Solve problems involving the distributive property with a provided formula.
16	Solve problems involving measurement of intervals of time.
17	Solve problems involving the associative property with a provided formula.
18	Determine the perimeter of a polygon when all sides but one are given.
19	Solve two-step problems involving division and addition.
20	Determine the area of a rectangular object.

Acadience Math–Fourth Grade Computation

Problem #	Problem Description
1	Add two two- or three-digit numbers, without renaming, resulting in a sum of 1000 or less.
2, 24	Add two four-digit numbers, with renaming from ones to tens, tens to hundreds, and hundreds to thousands.
3, 16	Add or subtract two mixed numbers with common denominators. Denominators must be 2, 3, 4, 5, or 10.
4	Multiply a one-digit number by a one-digit number, resulting in a product of 51 or more.
5, 20	Divide a three-digit dividend by a one-digit divisor, where the divisor does not evenly go into the first one or two digits of the dividend, resulting in a quotient and a remainder.
6	Subtract a two- or three-digit number from a three-digit number, without renaming.
7, 18	Add or subtract two fractions with common denominators. Denominators must be 6, 8, or 12.
8, 23	Subtract a three-digit number from a four-digit number, with renaming from tens to ones, hundreds to tens, and thousands to hundreds.
9, 25	Multiply a two-digit number by a two-digit number, without renaming.
10	Add or subtract two mixed numbers with common denominators. Denominators must be 6, 8, or 12.
11, 21	Divide a three-digit dividend by a one-digit divisor, where the divisor goes evenly into the first one or two digits of the dividend, resulting in a quotient and a remainder.
12	Divide a two-digit dividend by a one-digit divisor, resulting in a one-digit quotient and no remainder.
13, 22	Multiply a two-digit number by a two-digit number.
14, 17	Add or subtract two fractions with common denominators. Denominators must be 2, 3, 4, 5, or 10.
15, 19	Multiply a one-digit number by a three-digit number, with renaming from ones to tens and tens to hundreds.

Acadience Math–Fourth Grade Concepts and Applications

Problem #	Problem Description
1	Determine whether a drawn line is a line of symmetry for a given shape.
2	Compare two three-digit whole numbers.
3	Determine three multiples for a given number.
4	Solve two-step problems with double-digit addition and subtraction.
5	Compare decimals to the hundredth place.
6	Solve problems involving time and conversion of time from hours to minutes.
7	Identify acute, obtuse, and right angles of a given shape.
8	Round four-digit whole numbers to the nearest 10, nearest 100, and nearest 1000.
9	Divide whole numbers to solve problems.
10	Compare fractions with unlike denominators.
11	Convert measurements from larger to smaller units.
12	Draw lines, line segments, or rays that are parallel or perpendicular.
13	Write a five-digit number in expanded form.
14	Solve problems involving time and conversion of time from hours to minutes.
15	Determine the decimal notation for a fraction.
16	Solve subtraction problems involving money.
17	Determine if given numbers are prime or composite numbers.
18	Solve problems involving multiplication of a fraction with a whole number.
19	Determine the difference in length between two objects with the answer containing a fraction.
20	Determine the length or width of an object when given the area and length or width.

Acadience Math–Fifth Grade Computation

Problem #	Problem Description
1	Add two four-digit numbers, with renaming from ones to tens, tens to hundreds, and hundreds to thousands.
2, 14	Multiply a two-digit number by a three-digit number, without renaming.
3, 15	Add or subtract two mixed numbers with unlike denominators.
4, 16	Multiply a two-digit number by a three-digit number.
5	Divide a four-digit dividend by a two-digit divisor, where the divisor does not go evenly into the first two or three digits of the dividend, resulting in a two-digit quotient and no remainder.
6	Divide a three-digit dividend by a one-digit divisor, where the divisor goes evenly into the first one or two digits of the dividend, resulting in a quotient and a remainder.
7	Add or subtract two mixed numbers with common denominators. Denominators must be 2, 3, 4, 5, or 10.
8	Add or subtract two fractions with common denominators. Denominators must be 2, 3, 4, 5, or 10.
9	Subtract a three-digit number from a four-digit number, with renaming from tens to ones, hundreds to tens, and thousands to hundreds.
10	Multiply a one-digit number by a three-digit number, with renaming from ones to tens and tens to hundreds.
11	Divide a three-digit dividend by a two-digit divisor, without a remainder.
12	Add or subtract two fractions with unlike denominators.
13	Divide a four-digit dividend by a two-digit divisor, where the divisor goes evenly into the first two or three digits of the dividend, resulting in a two-digit quotient and no remainder.

Acadience Math–Fifth Grade Concepts and Applications

Problem #	Problem Description
1	Compare decimals to the thousandth place.
2	Plot and label ordered pairs.
3	Interpret and solve numerical expressions.
4	Convert like measurement units within a given measurement system and a provided conversion rate to solve a multi-step addition problem.
5	Solve problems involving the addition of fractions with unlike denominators.
6	Round decimals to the nearest tenth, hundredth, and thousandth place.
7	Determine an ordered pair by graphing points on a coordinate plane to solve real-world and mathematical problems.
8	Complete a ratio table, plot the points on a coordinate plane, and make a line graph that represents the data.
9	Determine the volume of an object.
10	Multiply two fractions with unlike denominators.
11	Solve a two-step problem that deals with addition and subtraction of money.
12	Determine the order of operations of a given numerical expression.
13	Determine the volume of an object.
14	Solve a one-step problem that results in a decimal.
15	Write numerical expressions when given written directions.
16	Divide a fraction by a whole number.

Acadience Math–Sixth Grade Computation

Problem #	Problem Description
1	Add two decimals to the tenth place, without renaming.
2	Subtract two decimals to the hundredth place, without renaming.
3	Multiply a two-digit number by a three-digit number.
4	Divide a four-digit dividend by a two-digit divisor, where the divisor goes evenly into the first two or three digits of the dividend, resulting in no remainder.
5	Add or subtract two mixed numbers with unlike denominators.
6	Add two decimals to the hundredth place, with renaming.
7	Subtract two decimals with both decimals to the hundredth place, with renaming.
8	Multiply two decimals to the tenth place, without renaming.
9	Divide a three-digit dividend by a decimal to the tenth place, without a remainder.
10	Add two decimals to the tenth place by a single digit number, with renaming
11	Multiply one decimal to the tenth place by a single digit number, with renaming.
12	Divide a four-digit dividend by a two-digit divisor, where the divisor does not go evenly into the first two or three digits of the dividend, resulting in no remainder.
13	Multiply a decimal to the tenth place with a decimal to the hundredth place.
14	Divide a decimal to the hundredth place by a decimal to the tenth place, without a remainder.
15	Subtract two decimals with both decimals to the hundredth place, with renaming.
16	Divide a decimal to the hundredth place by a decimal to the tenth place, where the divisor goes evenly into the first two or three digits of the dividend, resulting in no remainder.

Acadience Math–Sixth Grade Concepts and Applications

Problem #	Problem Description
1	Determine the ratio of the first set of items to the second set of items.
2	Determine the mean and median of a set of numbers.
3	Describe the quadrants where ordered pairs are located.
4	Write algebraic expressions.
5	Determine the volume of an object and how many smaller objects that would fit inside it.
6	Solve two-step problems involving multiplication and division.
7	Label positive and negative numbers on a number line.
8	Determine if a number substitution makes an inequality true or false.
9	Complete a ratio table.
10	Given three vertices, determine a fourth vertex that would form a rectangle, and plot all vertices on a graph.
11	Complete a ratio table, write an equation that illustrates the relationship from the ratio table, and make a bar graph that represents the data.
12	Determine the rate of an object when given the amount and the price.
13	Determine the range, median, and maximum number of the data from a box plot.
14	Solve problems of absolute value.
15	Determine the squared or cubed value of a single-digit whole number.
16	Determine the surface area of a cube or pyramid.
17	Solve a problem that has a constant.
18	Determine the greatest common factor of two double-digit numbers.
19	Write an equation based on given problem information.
20	Write an inequality based on given problem information.