## RISING 1ST

## NUMBER AND OPERATIONS (SUBSTANDARD 2)

111.2.2.A/C/D Count forward and backward to at least 20 with and without objects; count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order; recognize instantly the quantity of a small group of objects in organized and random arrangements.

## NUMBER AND OPERATIONS (SUBSTANDARD 3)

111.2.3.A Model the action of joining to represent addition and the action of separating to represent subtraction.
111.2.3.B Solve word problems using objects and drawings to find sums up to 10 and differences within 10.
111.2.3.C Explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences.

## RISING 2ND

## NUMBER AND OPERATIONS (SUBSTANDARD 3)

111.3.3.B Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as $2+4=[] ; 3+[]=7$; and $5=[]-3$.
111.3.3.A/D Use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99; Apply basic fact strategies to add and subtract within 20 , including making 10 and decomposing a number leading to a 10 .

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DESIGNED FOR STUDENTS
ENTERING 1ST - 9TH GRADE.


## NUMBER AND OPERATIONS (SUBSTANDARD 5)

111.3.5.C Use relationships to determine the number that is 10 more and 10 less than a given number up to 120 .
111.3.5.F/G Determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation; apply properties of operations to add and subtract two or three numbers.

## RISING 3RD

## NUMBER AND OPERATIONS (SUBSTANDARD 4)

111.4.4.B Add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.
111.4.4.C Solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms.
111.4.4.A Recall basic facts to add and subtract within 20 with automaticity.
111.4.4.D Generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.

## NUMBER AND OPERATIONS (SUBSTANDARD 2)

111.4.4. $\quad$ Use concrete and pictorial models to compose and decompose numbers up to 1,200 in more than one way as a sum of so many thousands, hundreds, tens, and ones.

## RISING 4TH

## NUMBER AND OPERATIONS (SUBSTANDARD 4)

111.5.4. $\quad$ Solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction.
111.5.4.E Represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting.
111.5.4.K Solve one-step and two-step problems involving multiplication and division with 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.

## NUMBER AND OPERATIONS (SUBSTANDARD 5)

111.5.5.A Represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations.
111.5.5.B Represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations.
111.5.5.C Determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is either a missing factor or product.

## RISING 5TH

## NUMBER AND OPERATIONS (SUBSTANDARD 4)

111.5.4.A Add and subtract whole numbers and decimals to the hundredths place using the standard algorithm.
111.6.4. H Solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.
111.6.4.D Use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties.
111.6.4.E Represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations.
111.6.4.F Use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor.

## RISING 6TH

## ALGEBRAIC REASONING (SUBSTANDARD 4)

111.7.4.B Represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity.

## NUMBER AND OPERATIONS (SUBSTANDARD 3)

111.7.3. Represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models.
111.7.3. Divide whole numbers by unit fractions and unit fractions by whole numbers.
111.7.3.J Represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as $1 / 3 \div 7$ and $7 \div 1 / 3$ using objects and pictorial models, including area models.

## RISING 7TH

## PROPORTIONALITY (SUBSTANDARD 4)

111.26.4.A Compare two rules verbally, numerically, graphically, and symbolically in the form of $y=$ ax or $\mathrm{y}=\mathrm{x}+\mathrm{a}$ in order to differentiate between additive and multiplicative relationships.
111.26.4.B Apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates.
111.26.4.G Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money.

## NUMBER AND OPERATIONS (SUBSTANDARD 3)

111.26.3.B Determine, with and without computation, whether a quantity is increased or decreased.

## RISING 8TH

## PROPORTIONALITY (SUBSTANDARD 4)

7.RP. 2 Recognize and represent proportional relationships between quantities.
7.RP. 3 Use proportional relationships to solve multistep ratio and percent problems.

Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

## NUMBER AND OPERATIONS (SUBSTANDARD 2)

111.27.2 The student applies mathematical process standards to represent and use rational numbers in a variety of forms. The student is expected to extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers.

## NUMBER AND OPERATIONS (SUBSTANDARD 3)

111.27.3.B Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers.

## RISING 9TH

## NUMBER AND OPERATIONS (SUBSTANDARD 2)

111.28.2.C Convert between standard decimal notation and scientific notation.

## PROPORTIONALITY (SUBSTANDARD 5)

111.28.5.A Represent linear proportional situations with tables, graphs, and equations in the form of $y=k x$.
111.28.5.C Contrast bivariate sets of data that suggest a linear relationship with bivariate sets of data that do not suggest a linear relationship from a graphical representation.

## PROPORTIONALITY (SUBSTANDARD 4)

111.28.4.B Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.

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