Florida Adult Basic Education

Mathematics - Level 2

Number Sense and Operations MA.L2.NSO

1 Understand the place value of four-digit whole numbers. MA.L2.NSO.1

1. Read and write numbers from 0 to 10,000 using standard form, expanded form, and word form. MA.L2.NSO.1.1
2. Compose and decompose four-digit numbers in multiple ways using thousands, hundreds, tens, and ones. Demonstrate each composition or decomposition using objects, drawings, and expressions or equations. MA.L2.NSO.1.2
3. Plot, order, and compare whole numbers up to 10,000. MA.L2.NSO.1.3
4. Round whole numbers from 0 to 1,000 to the nearest 10 or 100. MA.L2.NSO.1.4

2 Add and subtract multi-digit whole numbers. Build an understanding of multiplication and division operations. MA.L2.NSO.2

1. Recall addition facts with sums to 20 and related subtraction facts with automaticity. MA.L2.NSO.2.1
2. Add and subtract multi-digit whole numbers, including using a standard algorithm with procedural fluency. MA.L2.NSO.2.2
3. Identify the number that is ten more, ten less, one hundred more, and one hundred less than a given three-digit number. MA.L2.NSO.2.3
4. Explore multiplication of two whole numbers with products from 0 to 144 and related division facts. MA.L2.NSO.2.4
5. Explore the addition of two whole numbers with sums up to 1,000. Explore the subtraction of a whole number from a whole number, each no larger than 1,000. MA.L2.NSO.2.5
6. Multiply a one-digit whole number by a multiple of 10, up to 90, or a multiple of 100, up to 900, with procedural reliability. MA.L2.NSO.2.6
7. Multiply two whole numbers from 0 to 12 and divide using related facts with procedural reliability. MA.L2.NSO.2.7

Fractions MA.L2.FR

1 Understand fractions as numbers and represent fractions. MA.L2.FR.1

1. Partition circles and rectangles into two, three, or four equal-sized parts. Name the parts using appropriate language, and describe the whole as two halves, three thirds, or four fourths. MA.L2.FR.1.1
2. Partition rectangles into two, three, or four equal-sized parts in two different ways showing that equal-sized parts of the same whole may have different shapes. MA.L2.FR.1.2
3. Represent and interpret unit fractions in the form 1 / ?? as the quantity formed by one part when a whole is partitioned into ?? equal parts. MA.L2.FR.1.3
4. Represent and interpret fractions, including fractions greater than one, in the form of ?? / ?? as the result of adding the unit fraction 1 / ?? to itself ?? times. MA.L2.FR.1.4
5. Read and write fractions, including fractions greater than one, using standard form, numeral-word form, and word form. MA.L2.FR.1.5

1 Order and compare fractions and identify equivalent fractions. MA.L2.FR.2

1. Plot, order, and compare fractional numbers with the same numerator or the same denominator. MA.L2.FR.2.1
2. Identify equivalent fractions and explain why they are equivalent. MA.L2.FR.2.2

Algebraic Reasoning MA.L2.AR

1a Solve addition problems with sums between 0 and 100 and related subtraction problems. MA.L2.AR.1A.1

1. Solve one- and two-step addition and subtraction real-world problems, limited to sums up to 100 and related differences. MA.L2.AR.1A.1

1b Solve multiplication and division problems. MA.L2.AR.1B

1. Apply the distributive property to multiply a one-digit number and two-digit number. Apply properties of multiplication to find a product of one-digit whole numbers. MA.L2.AR.1B.1
2. Solve one- and two-step real-world problems involving any of four operations with whole numbers. MA.3.AR.1.B.2

2a Demonstrate an understanding of equality and addition and subtraction. MA.L2.AR.2A

1. Determine and explain whether equations involving addition and subtraction are true or false. MA.L2.AR.2A.1
2. Determine the unknown whole number in an addition or subtraction equation, relating three or four whole numbers, with the unknown in any position. MA.L2.AR.2A.2

2b Develop an understanding of equality and multiplication and division. MA.L2.AR.2B

1. Restate a division problem as a missing factor problem using the relationship between multiplication and division. MA.L2.AR.2B.1
2. Determine and explain whether an equation involving multiplication or division is true or false. MA.L2.AR.2B.2
3. Determine the unknown whole number in a multiplication or division equation, relating three whole numbers, with the unknown in any position. MA.L2.AR.2B.3

3 Develop an understanding of multiplication. MA.L2.AR.3

1. Represent an even number using two equal groups or two equal addends. Represent an odd number using two equal groups with one left over or two equal addends plus 1. MA.L2.AR.3.1
2. Use repeated addition to find the total number of objects in a collection of equal groups. Represent the total number of objects using rectangular arrays and equations. MA.L2.AR.3.2

Measurement MA.L2.M

1 Measure attributes of objects and solve problems involving measurement. MA.L2.M.1

1. Select and use appropriate tools to measure the length of an object, the volume of liquid within a beaker, and temperature. MA.L2.M.1.1
2. Solve real-world problems involving any of the four operations with whole number lengths, masses, weights, temperatures, or liquid volumes. MA.L2.M.1.2

2 Tell time and solve problems involving time and money. MA.L2.M.2

1. Find the value of combinations of pennies, nickels, and dimes up to one dollar, and the value of combinations of one, five, and ten dollar bills up to $100. Use the ¢ and $ symbols appropriately. MA.L2.M.2.1
2. Solve one- and two-step addition and subtraction real-world problems involving either dollar bills within $100 or coins within 100¢ using $ and ¢ symbols appropriately. MA.L2.M.2.2
3. Using analog and digital clocks, tell and write time to the nearest minute using a.m. and p.m. appropriately. Express portions of an hour using the fractional terms half an hour, half past, quarter of an hour, quarter after, and quarter til. MA.L2.M.2.3
4. Solve one- and two-step real-world problems involving elapsed time. MA.L2.M.2.4

Geometric Reasoning MA.L2.GR

1. **Describe and identify relationships between lines and classify quadrilaterals.** MA.L2.GR.1
   1. Describe and draw points, lines, line segments, rays, intersecting lines, perpendicular lines, and parallel lines. Identify these in two-dimensional figures. MA.L2.GR.1.1
   2. Informally explore angles as an attribute of two-dimensional figures. Figures are limited to triangles, rectangles, squares, pentagons, hexagons, and octagons. MA.L2.GR.1.2
   3. Categorize two-dimensional figures based on the number and length of sides, number of vertices, whether they are closed or not, and whether the edges are curved or straight. MA.L2.GR.1.3
   4. Identify and draw quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares, and trapezoids. Draw line(s) of symmetry in a two-dimensional figure and identify line symmetric two-dimensional figures. Identify and draw quadrilaterals based on their defining attributes. Quadrilaterals include parallelograms, rhombi, rectangles, squares, and trapezoids. MA.L2.GR.1.4
   5. Draw line(s) of symmetry in a two-dimensional figure and identify line symmetric two-dimensional figures. MA.L2.GR.1.5

2. **Solve problems involving the perimeter and area of rectangles.** MA.L2.GR.2
   1. Explore perimeter as an attribute of a figure by placing unit segments along the boundary without gaps or overlaps. Find perimeters of rectangles by counting unit segments. MA.L2.GR.2.1
   2. Find the perimeter of a polygon with whole-number side lengths. Polygons are limited to triangles, rectangles, squares, and pentagons. MA.L2.GR.2.2
   3. Explore area as an attribute of a two-dimensional figure by covering the figure with unit squares without gaps or overlaps. Find areas of rectangles by counting unit squares. MA.L2.GR.2.3
   4. Find the area of a rectangle with whole-number side lengths using a visual model and a multiplication formula. MA.L2.GR.2.4
   5. Solve mathematical and real-world problems involving the perimeter and area of rectangles with whole-number side lengths using a visual model and a formula. MA.L2.GR.2.5
   6. Solve mathematical and real-world problems involving the perimeter and area of composite figures composed of non-overlapping rectangles with whole number side lengths. MA.L2.GR.2.6

Data and Probability MA.L2.DP

1 **Collect, represent and interpret numerical and categorical data.** MA.L2.DP.1

1 Collect and represent numerical and categorical data with whole-number values using tables, scaled pictographs, scaled bar graphs, or line plots. Use appropriate titles, labels, and units. MA.L2.DP.1.1

2 Interpret data with whole-number values represented with tables, scaled pictographs, circle graphs, scaled bar graphs, or line plots by solving one- and two-step problems. MA.L2.DP.1.2