Operations and Algebraic Thinking (5.OA)

Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

Lesson	16	17	18	19	20	21	22	23	24	25
Exercise	16.1	17.2	18.2	19.1	20.2	21.5	22.2, 22.5	23.2. 23.6	24.1, 24.3	25.1, 25.3

Lesson	36	37	38	39	40	41	42	43	44	45
Exercise	36.7	37.2, 37.6	38.3, 38.6, 38.7	39.2, 39.6	40.2, 40.8	41.2, 41.8	42.3	43.7	44.7	45.8

Lesson	46	47	48	49	50	51	52	53	54	55
Exercise	46.8, 46.9	47.8	48.8	49.7	50.5, 50.8	51.8	52.7	53.4, 53.6	54.5, 54.6	55.5, 55.7

Lesson	56	57	58	59	60
Exercise	56.6, 56.8	57.5, 57.7	58.6, 58.8	59.7	60.7

Operations and Algebraic Thinking (5.OA)

Write and interpret numerical expressions.

2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.*

For example, find the prime factors of 24 and express 24 as 2 x 2 x 2 x 3.

Number and Operations in Base Ten (5.NBT)

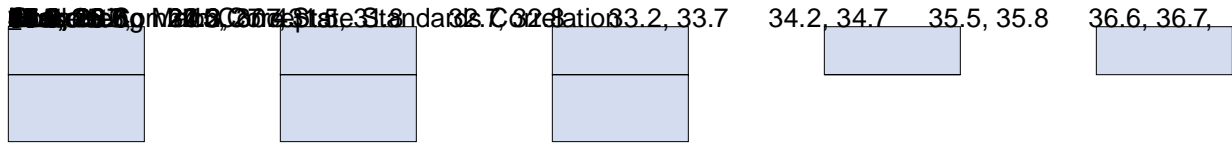Perform operations with multi-digit whole numbers and with decimals to hundredths.

7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the

Number and Operations—Fractions (5.NF)

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

3. Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?

Lesson	39	40	41	42	43	44	45	46	47	48
Exercise	39.2, 39.6	40.2, 40.8, 40.9	41.2, 41.8	42.3	43.7	44.7, 44.8	45.8	46.8, 46.9	47.8	48.8

Lesson	49	50	51	52	53	54	55	56	57	58
Exercise	49.7	50.5	51.7, 51.8	52.5, 52.7	53.6, 53.8	54.5, 54.8	55.5, 55.7	56.6, 56.8	57.5	58.4, 58.6

Lesson	59	60
Exercise	59.5, 59.7	60.3, 60.7

Number and Operations—Fractions (5.NF)

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

5. Interpret multiplication as scaling (resizing), by:
   a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
   b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n×a)/(n×b) to the effect of multiplying a/b by 1.

Lesson	11	12	13	14	15	16	17	18	19	20
Exercise	11.2	12.3	13.2	14.1	15.3, 15.5	16.1	17.2	18.2	19.1	20.2

Lesson	21	22	23	24	25	26	217	28	29	30
Exercise	21.5	22.2	23.2	24.1, 24.3	25.1, 25.3	26.4, 26.6	27.7, 27.8	28.6, 28.8	29.6	30.3, 30.8

Geometry (5.G)

Classify two-dimensional figures into categories based on their properties.

3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.

Lesson	41	42	43	54	55	58	60
Exercise	41.5	42.4	43.3	54.4	55.4	58.8	60.8

Geometry (5.G)

Classify two-dimensional figures into categories based on their properties.

4. Classify two-dimensional figures in a hierarchy based on properties.

Lesson	41	42	43
Exercise	41.5	42.4	43.3

Level F Correlation to Grade 5 Common Core State Standards for Mathematics

Operations and Algebraic Thinking (5.OA)

Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

expressions without evalua
then multiply by 2"as 2 × (8
as 18932 + 921, without hav

Connecting Math Concepts

Lesson	71	72	73	74	75	76	77	78	79	83
Exercise	71.8	72.7	73.8	74.8	75.8	76.8	77.7___	84 85 86 87 88 89 90 91 92 93 Exercise Lesson 94 95		

Lesson	87	88
Exercise	87.7	88.4

Lesson	120
Exercise	120.3

Number and Operations in Base Ten (5.NBT)

Understand the place value system.

2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

Lesson	63	64	65	66	67	68	69	70	76	81
Exercise	63.6,63.7	64.3	65.3	66.4	67.6	68.7	69.4, 69.7	70.3, 70.9	76.1	81.2

Lesson	82	83	84	85	86	87	88	89	93	95
Exercise	82.2	83.3	84.3	85.3	86.2	87.9	88.7	89.7	93.7	95.7

Lesson	96	97	98	101	102	103	104	105	106	108
Exercise										

Lesson	79	81	83	85	87
Exercise	79.9	81.7			

Lesson	114	115	116	117	118	119	120
Exercise	114.7	115.7					

Lesson	61	62	63	64	65	66	67	68	69	70
Exercise	61.4, 61.6	62.2, 62.6	63.8	64.7	65.7	66.8	67.6	68.7	69.7	70.9

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.8	72.7	73.8	74.8	75.8	76.8	77.3, 77.4	78.4	79.6, 79.9	80.6

Lesson	81	82	83	84	85	86	87	88	89	90
Exercise	81.7	82.7	83.8	84.5, 84.9	85.8	86.4, 86.9	87.9	88.2, 88.7	89.2, 89.7	90.2, 90.7, 90.8

Lesson	91	92	93	94	95	96	97	98	99	100
Exercise	91.2, 91.7, 91.8	92.6	93.4, 93.7	94.4, 94.6, 94.8	95.7	96.7	97.8	98.2, 98.6, 98.8	99.2, 99.6	100.3, 100.5, 100.8

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by
    using visual fraction models or equations to represent the problem.

Lesson	61	62	64	66	68	70	71	72	73	74
Exercise	61.6	62.6	64.7	66.8	68.7	70.9	71.8	72.7	73.8	74.8

Lesson	75	76	77	78	79	80	81	82	83	84
Exercise	75.8	76.8	77.3	78.4, 78.6	79.6, 79.9	80.6	81.7	82.7	83.8	84.9

Lesson	85	86	87	90	91	93	94	95	96	97
Exercise	85.8	86.9	87.9	90.7	91.7, 91.8	93.7	94.6	95.7	96.7	97.8

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Measurement and Data (5.MD)

Convert like measurement units within a given measurement system.

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Lesson	90	91	92	93	94	95	96	97	98	99
Exercise	90.5	91.5	92.5	93.6	94.5	95.5	96.4	97.5	98.5	99.5

Lesson	100	101	102	103	104	105	106	107	108	109
Exercise	100.4	101.7	102.7	103.7	104.7	105.7	106.6	107.2, 107.6	108.5, 108.7	109.5, 109.6

Lesson	110	111	112	113	114	115	116
Exercise	110.5, 110.8	111.8	112.6	113.6	114.7	115.7	116.7

Measurement and Data (5.MD)

Represent and interpret data.

2. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

Lesson	112	113	114	115	116	117	119	120
Exercise	112.1	113.4	114.4	115.3	116.2	117.5	119.8	120.5

Measurement and Data (5.MD)

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.
   a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
   b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.

Geometry (5.G)

Graph points on the coordinate plane to solve real-world and mathematical problems.

2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Lesson	62	64	65	66	67	69	70	71	72	73
Exercise	62.6	64.2	65.2	66.2	67.3	69.3	70.4	71.3	72.2	73.4

Lesson	74	75	76	77	79	82	83	84	86	87
Exercise	74.4, 74.8	75.8	76.8	77.7	79.9	82.7	83.8	84.9	86.9	87.9

Lesson	88	91	94	96	99	101	105	109	111	118
Exercise	88.7	91.8	94.8	96.7	99.8	101.7	105.7	109.6	111.8	118.2

Lesson	119	120
Exercise	119.2	120.1

Geometry (5.G)

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