Level E Correlation to Grade 4 Common Core State Standards for Mathematics

Operations and Algebraic Thinking (4.OA)

Use the four operations with whole numbers to solve problems.

1. Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

Lesson	71	72	74	78	83	86	87	116
Exercise	71.9	72.9	74.8	78.9	83.9	86.9	87.9	116.7

Operations and Algebraic Thinking (4.OA)

Use the four operations with whole numbers to solve problems.

2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.9	72.9	73.8	74.8	75.9	76.9	77.9	78.9	79.9	80.9

Lesson	81	82	83	84	85	86	87	88	89	90
Exercise	81.8	82.6, 82.9	83.5, 83.9	84.9	85.10	86.9	87.9	88.8	89.7	90.4

Lesson	91	92	93	94	95	108	109	110	111	112
Exercise	91.6	92.3	93.8	94.7	95.9	108.8	109.2	110.7	111.7	112.5

Lesson	113	114	115	116	117	118	121	124	125	126
Exercise	113.6	114.4	115.6	116.7	117.7	118.7	121.6	124.3	125.3, 125.8	126.6

Lesson	127
Exercise	127.3, 127.7

Operations and Algebraic Thinking (4.OA)

Use the four operations with whole numbers to solve problems.

3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Lesson	113	127	130
Exercise	113.6	127.3	130.7

Operations and Algebraic Thinking (4.OA)

Gain familiarity with factors and multiples.

4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

Lesson	100	101	102	103	104	105	106	107	108	109
Exercise	100.7	101.2	102.2	103.2	104.2	105.1	106.2	107.2	108.1	109.1

Lesson	110	111	112	113	114	115	116	117	118	119
Exercise	110.1	111.5	112.7, 112.8	113.2, 113.8	114.2, 114.8	115.7, 115.8	116.7	117.6	118.2, 118.6	119.1, 119.4

Lesson	120	121	122	123	124	125	126	127	128	129
Exercise	120.3, 120.7	121.4, 121.6	122.1, 122.4	123.1, 123.7	124.1, 124.6	125.2, 125.6	126.4, 126.7	127.2, 127.7	128.3, 128.6	129.4, 129.6

Lesson	130
Exercise	130.4

Operations and Algebraic Thinking (4.OA)

Generate and analyze patterns.

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*

Lesson	112	113	114	115
Exercise	112.7	113.2	114.2	115.7

Student Practice Software: Block 3 Activity 4, Block 4 Activity 5, Block 5 Activity 2

Number and Operations in Base Ten (4.NBT)

Generalize place value understanding for multi-digit whole numbers.

1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.*

Lesson	71	72	75	76	77	78	79	80	81	82
Exercise	71.4	72.1, 72.4	75.1, 75.4	76.1	77.1	78.1, 78.3	79.1, 79.4	80.4	81.1	82.1, 82.4

Lesson	84	86	92	114
Exercise	84.1	86.5	92.1	114.8

Number and Operations in Base Ten (4.NBT)

Generalize place value understanding for multi-digit whole numbers.

2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

Lesson	114	115	116	117	118	119	120	121
Exercise	114.5	115.4	116.4	117.5	118.4	119.5	120.6	121.6

Number and Operations in Base Ten (4.NBT)

Generalize place value understanding for multi-digit whole numbers.

3. Use place value understanding to round multi-digit whole numbers to any place.

Lesson	79	80	81	82	83	84	85	86	87	88
Exercise	79.5	80.6	81.2	82.5	83.4, 83.9	84.6, 84.8	85.6	86.6	87.6	88.5, 88.8

Lesson	89	90	91	92	93	94	95	96	97	98
Exercise	89.7	90.8	91.3, 91.5	92.6, 92.8	93.2, 93.9	94.2, 94.6	95.7, 95.9	96.8	97.7	98.5

Lesson	99	100	106	110	112	116	121	128	130
Exercise	99.5	100.8	106.8	110.7	112.8	116.7	121.6	128.7	130.7

Number and Operations in Base Ten (4.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.5, 71.7, 71.9	72.5, 72.9	73.5, 73.8	74.5, 74.8	75.8	76.7, 76.9	77.8, 77.9	78.9	79.9	80.9

Lesson	81	82	83	84	85	86	87	88	89	90
Exercise	81.2	82.5, 82.9	83.4, 83.9	84.6, 84.9	85.10	86.9	87.9	88.1, 88.8	89.7	90.8

Lesson	91	92	93	94	95	96	97	98	99	100
Exercise	91.8	92.8	93.9	94.9	95.9	96.9	97.3, 97.7, 97.9	98.4, 98.5, 98.7	99.5, 99.6, 99.8	100.5, 100.8

Lesson	101	102	103	104	105	106	107	108	109	110
Exercise	101.4, 101.5	102.5, 102.6, 102.8	103.5, 103.6, 103.8	104.5, 104.7, 104.8	105.7, 105.8	106.8	107.6	108.6, 108.8	109.7	110.5, 110.7

Lesson	111	112	113	114	115	116	117	118	119	120
Exercise	111.1, 111.3	112.2, 112.6, 112.8	113.3, 113.8	114.1, 114.6, 114.8	115.1, 115.5, 115.8	116.1, 116.5, 116.7	117.2, 117.3, 117.7	118.1, 118.5, 118.7	119.3, 119.6	120.1, 120.4, 120.7

Lesson	121	122	123	124	125	126	127	128	129
Exercise	121.2, 121.6	122.2, 122.7	123.2, 123.7	124.4, 124.7	125.4, 125.5, 125.8	126.3, 126.6, 126.7	127.3, 127.6, 127.7	128.5, 128.7	129.6

Number and Operations in Base Ten (4.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.

5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Lesson	71	72	73	74	75	76	77	79	82	83
Exercise	71.4, 71.9	72.1, 72.4, 72.9	73.8	74.2, 74.8	75.1, 75.3, 75.4, 75.9	76.9	77.9	79.9	82.9	83.9

Lesson	84	85	86	87	88	89	90	91	92	93
Exercise	84.7, 84.9	85.5, 85.10	86.3, 86.5, 86.9	87.3, 87.5, 87.9	88.3, 88.8	89.4	90.4, 90.8	91.6, 91.8	92.3, 92.5, 92.8	93.3, 93.8

Lesson	94	95	96	97	98	99	101	102	103	104
Exercise	94.7	95.6, 95.9	96.7, 96.9	97.3, 97.4, 97.9	98.4, 98.8, 98.9	99.4, 99.8, 99.9	101.3, 101.8	102.5, 102.8	103.5, 103.8	104.3, 104.5, 104.8

Lesson	105	106	107	108	109	110	111	112	113	114
Exercise	105.3, 105.7	106.8	107.9	108.8	109.8	110.6, 110.7	111.4, 111.6, 111.7	112.3, 112.5, 112.8	113.5, 113.6, 113.8	114.4, 114.7, 114.8

Lesson	115	116	117	118	119	120	121	122	123	124
Exercise	115.5, 115.6	116.5, 116.7	117.7	118.7	119.3, 119.6	120.1, 120.7	121.6	122.5, 122.7	123.5, 123.7	124.7

Lesson	125	126	127	128	129	130
Exercise	125.8	126.1, 126.7	127.1, 127.3	128.7	129.6	130.6

Number and Operations in Base Ten (4.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.

6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.9	72.2, 72.9	73.2, 73.8	74.2, 74.8	75.3, 75.9	76.9	77.9	78.9	79.9	80.9

Lesson	81	82	83	84	85	86	87	88	89	90
Exercise	81.8	82.9	83.9	84.7, 84.9	85.5, 85.10	86.3, 86.5, 86.9	87.3, 87.5, 87.9	88.3, 88.8	89.4	90.4, 90.7, 90.8

Lesson	91	92	93	94	95	96	97	98	99	100
Exercise	91.3, 91.6	92.3, 92.5, 92.8	93.3, 93.8	94.7, 94.9	95.6, 95.9	96.6, 96.7, 96.9	97.3, 97.9	98.4, 98.9	99.4, 99.8, 99.9	100.7, 100.8

Lesson	101	102	103	104	105	106	107	108	109	110
Exercise	101.6, 101.8	102.5, 102.7, 102.8	103.4, 103.5, 103.8	104.1, 104.5, 104.8	105.1, 105.5, 105.7, 105.8	106.6, 106.8	107.1, 107.3, 107.8, 107.9	108.1, 108.3, 108.7, 108.8	109.1, 109.2, 109.5, 109.6, 109.8	110.1, 110.6, 110.7

Lesson	111	112	113	114	115	116	117	118	119	120
Exercise	111.4, 111.6, 111.7	112.3, 112.5, 112.8	113.5, 113.6, 113.8	114.2, 114.4, 114.7, 114.8	115.5, 115.6, 115.7, 115.8	116.5, 116.7	117.6, 117.7	118.2, 118.7	119.3, 119.6	120.7

Lesson	121	122	123	124	125	126	127	128	129	130
Exercise	121.6	122.3, 122.5, 122.7	123.3, 123.5, 123.7	124.3, 124.5, 124.7	125.1, 125.3, 125.8	126.6, 126.7	127.1, 127.3, 127.7	128.1, 128.3, 128.7	129.4, 129.6	130.2, 130.4

Number and Operations—Fractions (4.NF)

Extend understanding of fraction equivalence and ordering.

1. Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.3	72.3	73.6	74.6	75.9	76.5, 76.8	77.5, 77.9	78.3, 78.5, 78.9	79.8, 79.9	80.9

Lesson	81	82	83	84	85	86	87	88	89	90
Exercise	81.6, 81.8	82.6, 82.8, 82.9	83.7, 83.9	84.5, 84.7	85.5, 85.10	86.3, 86.5, 86.9	87.3, 87.5, 87.9	88.3, 88.8	89.4	90.4, 90.8

Lesson	91	92	93	94	95	96	97	98	99	100
Exercise	91.6	92.3, 92.8	93.4	94.5	95.4, 95.9	96.6, 96.9	97.4, 97.9	98.8, 98.9	99.4, 99.6, 99.9	100.5, 100.8

Lesson	101	102	103	104	105	106	107	108	109	110
Exercise	101.3	102.4, 102.8	103.5, 103.8	104.3, 104.5	105.3, 105.7, 105.8	106.7, 106.8	107.3, 107.8	108.3, 108.8	109.6, 109.8	110.6, 110.7

Lesson	111	112	113	114	116	119	120	121	122	123
Exercise	111.4, 111.7	112.8	113.8	114.8	116.7	119.2, 119.6	120.2, 120.7	121.3	122.5	123.5, 123.7

Lesson	124	125	126	128
Exercise	124.7	125.8	126.7	128.7

Number and Operations—Fractions (4.NF)

Extend understanding of fraction equivalence and ordering.

2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Lesson	95	96	97	98	99	100	101	102	103	104
Exercise	95.2	96.2	97.1	98.2	99.9	100.2	101.6, 101.8	102.7, 102.8	103.4, 103.8	104.8

Lesson	105	106	107	108	111	115	118	124	129
Exercise	105.8	106.1	107.1	108.8	111.7	115.8	118.7	124.7	129.6

Number and Operations—Fractions (4.NF)

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

3. Understand a fraction *a/b* with *a* > 1 as a sum of fractions 1/*b*.
   a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
   b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples: 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2⅛ = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.*
   c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
   d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.9	72.6, 72.9	73.2, 73.4	74.2, 74.4	75.2, 75.3, 75.5	76.3, 76.9	77.4, 77.9	78.6, 78.9	79.7, 79.9	80.2

Lesson	81	82	83	84	85	86	87	88	89	90
Exercise	81.7, 81.8	82.7, 82.9	83.8, 83.9	84.4, 84.9	85.4, 85.10	86.8, 86.9	87.8	88.2	89.2, 89.7	90.2

Lesson	91	92	93	94	95	97	98	99	100	101
Exercise	91.8	92.8	93.9	94.9	95.9	97.3	98.4, 98.8	99.8	100.8	101.8

Lesson	102	103	104	105	106	107	108	109	110	111
Exercise	102.8	103.8	104.1, 104.8	105.5	106.6, 106.8	107.7, 107.8	108.5, 108.7, 108.8	109.5, 109.8	110.7	111.7

Lesson	112	113	114	115	116	117	119	121	122	123
Exercise	112.8	113.8	114.8	115.8	116.7	117.7	119.6	121.2, 121.3	122.2, 122.7	123.2, 123.6, 123.7

Lesson	124	125	127	128	129	130
Exercise	124.3, 124.4, 124.7	125.3, 125.4, 125.8	127.6, 127.7	128.5	129.1, 129.6	130.1, 130.5

Number and Operations—Fractions (4.NF)

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
   a. Understand a fraction a/b as a multiple of $1/b$. *For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).*
   b. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.)*
   c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

Lesson	71	72	73	74	75	76	78	79	81	85
Exercise	71.8	72.6	73.4, 73.6	74.4, 74.6	75.5, 75.9	76.5, 76.9	78.9	79.9	81.8	85.10

Lesson	89	95	96	97	98	99	100	102	103	104
Exercise	89.7	95.9	96.9	97.9	98.1, 98.3	99.1, 99.2	100.6, 100.8	102.3, 102.4	103.7	104.1

Lesson	105	106	107	108	109	110	111	114	116	117
Exercise	105.5	106.6	107.8	108.7	109.5, 109.8	110.7	111.7	114.8	116.7	117.7

Lesson	119	121	124	125	127	128	129
Exercise	119.6	121.6	124.3, 124.7	125.3, 125.8	127.7	128.1	129.6

Number and Operations—Fractions (4.NF)

Understand decimal notation for fractions, and compare decimal fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.*

Lesson	78	121	122	123	124
Exercise	78.3	121.3	122.7	123.2	124.7

Number and Operations—Fractions (4.NF)

Understand decimal notation for fractions, and compare decimal fractions.

6. Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.*

Lesson	72	74	76	78	96	104	106	108	109	114
Exercise	72.9	74.8	76.9	78.3	96.9	104.8	106.7	108.8	109.6	114.8

Lesson	116	120	123	125	126	127	129
Exercise	116.7	120.7	123.7	125.8	126.2	127.5	129.6

Number and Operations—Fractions (4.NF)

Understand decimal notation for fractions, and compare decimal fractions.

7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Lesson	110	111	112	113
Exercise	110.2	111.1	112.1	113.1

Student Practice Software: Block 2 Activity 6, Block 3 Activity 1, Block 4 Activity 4

Measurement and Data (4.MD)

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...*

Lesson	74	75	77	82	84	126	127	128
Exercise	74.8	75.9	77.9	82.9	84.9	126.1	127.1	128.1

Measurement and Data (4.MD)

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Lesson	71	72	73	74	76	77	78	79	80	82
Exercise	71.9	72.9	73.8	74.8	76.9	77.9	78.9	79.9	80.9	82.9

Lesson	83	84	85	86	87	88	89	90	91	92
Exercise	83.9	84.9	85.10	86.9	87.9	88.8	89.7	90.8	91.8	92.8

Lesson	93	94	105	106	107	108	110	111	112	113
Exercise	93.9	94.9	105.8	106.8	107.7	108.5, 108.8	110.7	111.7	112.5, 112.8	113.6, 113.8

Lesson	115	116	117	118	120	121	122	123	124	125
Exercise	115.6, 115.8	116.7	117.7	118.7	120.7	121.6	122.5	123.5, 123.7	124.3, 124.7	125.3, 125.8

Lesson	126	127	128	129	130
Exercise	126.6	127.3, 127.6	128.5	129.3, 129.6	130.5

Measurement and Data (4.MD)

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

Lesson	71	75	82	85	88	89	90	91	92	93
Exercise	71.9	75.9	82.9	85.10	88.3	89.7	90.7	91.3	92.5	93.3

Lesson	94	95	96	97	98	99	100	101	102	104
Exercise	94.1	95.6	96.7	97.3	98.4	99.8	100.8	101.8	102.8	104.8

Lesson	106	108	110	112	114	117	121	124	125	126
Exercise	106.8	108.8	110.7	112.8	114.8	117.7	121.6	124.3, 124.7	125.3	126.6

Lesson	127	129
Exercise	127.3	129.6

Measurement and Data (4.MD)

Represent and interpret data.

4. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

Lesson	129	130
Exercise	129.3	130.5

Measurement and Data (4.MD)

Geometric measurement: understand concepts of angle and measure angles.

5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
   a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles.
   b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.5	72.5, 72.9	73.5	74.5	75.6, 75.9	76.9	77.6, 77.9	78.2, 78.9	79.2, 79.9	80.8

Lesson	81	82	83	84	87	90	91	93	95	97
Exercise	81.8	82.9	83.9	84.9	87.9	90.8	91.8	93.9	95.9	97.9

Lesson	99	103	107	108	109	110	112	113	114	115
Exercise	99.9	103.8	107.4	108.4	109.4, 109.8	110.4	112.4, 112.8	113.4	114.3	115.2, 115.8

Lesson	116	117	118	119	121	122	123	124	125	126
Exercise	116.6	117.4	118.7	119.6	121.5	122.6	123.4, 123.7	124.2	125.7	126.5, 126.7

Lesson	127	128	129
Exercise	127.7	128.4	129.2

Measurement and Data (4.MD)

Geometric measurement: understand concepts of angle and measure angles.

6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

Lesson	121	122	123	125	126	127	128	129
Exercise	121.5	122.6	123.4	125.7	126.7	127.7	128.4	129.2

Measurement and Data (4.MD)

Geometric measurement: understand concepts of angle and measure angles.

7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Lesson	71	72	73	74	75	76	77	78	79	80
Exercise	71.5	72.5	73.5	74.5	75.6	76.9	77.6, 77.9	78.2	79.2, 79.9	80.8

Lesson	81	82	83	84	87	90	93	97	99	103
Exercise	81.8	82.9	83.9	84.9	87.9	90.8	93.9	97.9	99.9	103.8

Lesson	109	112	115	123	124	126
Exercise	109.8	112.8	115.8	123.7	124.2	126.7

Geometry (4.G)

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

Lesson	95	96	97	100	101	102	103	108	109	110
Exercise	95.3	96.3	97.2	100.1	101.1	102.3	103.1, 103.3	108.4	109.4	110.4

Lesson	111	112	113	114	115	116	117	118	119	120
Exercise	111.7	112.4	113.4	114.3	115.2	116.6	117.4	118.7	119.6	120.5

Lesson	122	125	126	127	128	129	130
Exercise	122.7	125.7, 125.8	126.5	127.4	128.4, 128.7	129.2, 129.5	130.3

Student Practice Software: Block 5 Activity 1

Geometry (4.G)

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

Lesson	108	109	110	111	112	113	114	115	116	117
Exercise	108.4	109.4	110.4	111.7	112.4	113.4	114.3	115.2	116.6	117.4

Lesson	118	119	122	125	126	127	128	129	130
Exercise	118.7	119.6	122.7	125.7, 125.8	126.5	127.4	128.7	129.5	130.3

Geometry (4.G)

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

This standard is addressed in the following activities of the Student Practice Software:
- **Block 3** Activity 2
- **Block 4** Activity 2
- **Block 5** Activity 3

Level E Correlation to Grade 4 Common Core State Standards for Mathematics

Operations and Algebraic Thinking (4.OA)

Use the four operations with whole numbers to solve problems.

1. Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

Lesson	46	47	48	49	50	51	52	53	54	55
Exercise	46.4, 46.8	47.5, 47.8	48.5, 48.8	49.8	50.9	51.7, 51.10	52.9	53.8	54.6	55.6

Lesson	56	58	59	61	65	66	68	69
Exercise	56.7	58.7	59.8	61.10	65.5	66.5	68.6	69.5

Operations and Algebraic Thinking (4.OA)

Use the four operations with whole numbers to solve problems.

2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

Lesson	46	47	48	51	52	53	54	56	58	59
Exercise	46.8	47.5	48.5	51.10	52.5, 52.9	53.5	54.6	56.8	58.8	59.6, 59.8

Lesson	60	61	62	63	64	65	66	67	68	69
Exercise	60.4, 60.9	61.10	62.10	63.5, 63.10	64.8	65.5	66.5, 66.8	67.4, 67.10	68.6	69.5

Lesson	70
Exercise	70.8

Operations and Algebraic Thinking (4.OA)

Use the four operations with whole numbers to solve problems.

3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

This standard is first addressed in **Lesson 113.**

Operations and Algebraic Thinking (4.OA)

Gain familiarity with factors and multiples.

4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

Lesson	32	33	36	37	38	39	40
Exercise	32.3	33.3	36.2	37.6	38.6	39.4, 39.8	40.3, 40.6

Operations and Algebraic Thinking (4.OA)

Generate and analyze patterns.

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*

Lesson	13
Exercise	13.3

This standard is addressed further starting in **Lesson 112** and in Blocks 3, 4, and 5 of the Student Practice Software.

Number and Operations in Base Ten (4.NBT)

Generalize place value understanding for multi-digit whole numbers.

1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.*

Lesson	1	2	3	4	5	6	7	8	9	11
Exercise	1.4	2.5, 2.8	3.5, 3.7	4.1, 4.5	5.3, 5.5, 5.9	6.10	7.10	8.11	9.10	11.10

Lesson	12	13	14	15	16	17	18	19	20	21
Exercise	12.11	13.10	14.9	15.9	16.10	17.10	18.9	19.10	20.10	21.10

Lesson	23	24	25	26	29	31	32	33	34	35
Exercise	23.8	24.8	25.9	26.9	29.9	31.4	32.4	33.5	34.5	35.5, 35.9

Lesson	36	37	38	39	40	41	42	43	44	45
Exercise	36.4	37.4, 37.9	38.4	39.5, 39.9	40.4, 40.7	41.2, 41.4	42.5, 42.10	43.4	44.3	45.1, 45.4, 45.8

Lesson	46	48	49	50	51	53	54	55	57	59
Exercise	46.3	48.4	49.4	50.3	51.3	53.3	54.3	55.4	57.3	59.3

Lesson	60	61	62	63	64	65	66	68	69	70
Exercise	60.3	61.4	62.1, 62.4	63.4	64.4	65.3	66.3	68.4	69.3	70.4

Number and Operations in Base Ten (4.NBT)

Generalize place value understanding for multi-digit whole numbers.

2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

Lesson	1	2	3	4	5	6	7	8	9	10
Exercise	1.4	2.8	3.7	4.5	5.5, 5.7	6.4, 6.9	7.7	8.7	9.4	10.7

Lesson	11	12	13	15	16	17	19	21	26	28
Exercise	11.7	12.6	13.7	15.2, 15.4	16.2, 16.8	17.6	19.8	21.2	26.5	28.4

Lesson	31	65	66
Exercise	31.3, 31.7	65.4	66.4

Number and Operations in Base Ten (4.NBT)

Generalize place value understanding for multi-digit whole numbers.

3. Use place value understanding to round multi-digit whole numbers to any place.

This standard is first addressed in **Lesson 79.**

Number and Operations in Base Ten (4.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Lesson	3	4	5	6	7	8	9	10	11	12
Exercise	3.9	4.7, 4.9	5.1, 5.4, 5.5, 5.9	6.4, 6.5, 6.7, 6.10	7.4, 7.5	8.9	9.1, 9.8	10.6, 10.9	11.10	12.5, 12.8, 12.11

Lesson	13	14	15	16	17	18	19	20	21	22
Exercise	13.4, 13.9, 13.10	14.4, 14.6, 14.8, 14.9	15.5, 15.6, 15.9	16.5, 16.9, 16.10	17.4, 17.7, 17.10	18.6, 18.7, 18.9	19.3, 19.10	20.2, 20.10	21.2, 21.10	22.2, 22.9

Lesson	23	24	25	26	27	28	29	30	31	32
Exercise	23.6, 23.8	24.8	25.2, 25.9	26.5, 26.7, 26.9	27.4, 27.8	28.5, 28.6, 28.9	29.6, 29.9	30.8	31.3, 31.8, 31.10	32.5, 32.10

Lesson	33	34	35	36	37	38	39	40	41	42
Exercise	33.7, 33.10	34.7, 34.9	35.7, 35.9	36.3, 36.6, 36.11	37.3, 37.8, 37.9	38.2, 38.7, 38.9	39.3, 39.7, 39.9	40.5, 40.9	41.5, 41.6, 41.9	42.7, 42.10

Lesson	43	44	45	46	47	48	49	50	51	52
Exercise	43.5, 43.9	44.4, 44.9	45.8	46.9	47.10	48.10	49.10	50.9	51.10	52.9

Lesson	53	54	55	56	57	58	59	60	61	62
Exercise	53.9	54.9	55.9	56.2, 56.8	57.2, 57.8	58.8	59.8	60.9	61.10	62.10

Lesson	63	64	65	66	67	68	69	70
Exercise	63.10	64.8	65.5, 65.8	66.8	67.10	68.7, 68.9	69.8	70.5, 70.6, 70.8

Number and Operations in Base Ten (4.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.

5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two
   two-digit numbers, using strategies based on place value and the properties of
   operations. Illustrate and explain the calculation by using equations, rectangular arrays,
   and/or area models.

Lesson	2	3	4	5	6	7	8	9	10	12
Exercise	2.5	3.5	4.1	5.3	6.1, 6.10	7.10	8.1	9.10	10.1	12.1, 12.11, 12.15

Lesson	13	14	15	16	17	18	19	20	21	22
Exercise	13.1, 13.10	14.1, 14.9	15.9	16.5, 16.10	17.5, 17.10	18.9	19.4, 19.10	20.10	21.5, 21.7, 21.10	22.4, 22.5

Lesson	23	24	25	26	27	28	29	30	31	32
Exercise	23.2, 23.8	24.8	25.1, 25.7, 25.9	26.3, 26.9	27.3, 27.6	28.3, 28.7, 28.9	29.4, 29.8, 29.9	30.1, 30.5, 30.8	31.4, 31.6, 31.10	32.4, 32.7, 32.10

Lesson	33	34	35	36	37	38	39	40	41	42
Exercise	33.5, 33.8, 33.10	34.5, 34.8, 34.9	35.5, 35.9	36.4, 36.11	37.4, 37.9	38.4, 38.9	39.5, 39.9	40.4, 40.7, 40.9	41.2, 41.4, 41.9	42.3, 42.5, 42.10

Lesson	43	44	45	46	47	48	49	50	51	52
Exercise	43.4, 43.8, 43.9	44.3, 44.7, 44.9	45.1, 45.2, 45.4, 45.8	46.3, 46.6, 46.8, 46.9	47.5, 47.6, 47.10	48.2, 48.4, 48.9, 48.10	49.2, 49.4, 49.8, 49.9, 49.10	50.2, 50.3, 50.9	51.2, 51.3, 51.6, 51.10	52.2, 52.5, 52.8, 52.9

Lesson	53	54	55	56	57	58	59	60	61	62
Exercise	53.3, 53.5, 53.6, 53.9	54.3, 54.6, 54.7, 54.9	55.2, 55.4, 55.9	56.8	57.3, 57.8	58.3, 58.8	59.3, 59.6, 59.8	60.3, 60.4, 60.9	61.4, 61.5, 61.10	62.1, 62.4, 62.5, 62.10

Lesson	63	64	65	66	67	68	69	70
Exercise	63.4, 63.5	64.2, 64.5, 64.8	65.2, 65.3, 65.5, 65.8	66.2, 66.3, 66.8	67.3, 67.10	68.4, 68.6, 68.9	69.3, 69.5	70.4, 70.8

Number and Operations in Base Ten (4.NBT)

Use place value understanding and properties of operations to perform multi-digit arithmetic.

6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Lesson	21	22	23	24	25	26	27	28	29	30
Exercise	21.3	22.3, 22.7	23.3, 23.8	24.7, 24.8	25.3, 25.9	26.9	27.8	28.9	29.9	30.7, 30.8

Lesson	31	32	33	34	35	36	37	38	39	40
Exercise	31.9	32.10	33.10	34.9	35.9	36.11	37.9	38.9	39.9	40.9

Lesson	42	45	46	47	48	49	50	51	52	53
Exercise	42.10	45.8	46.8, 46.9	47.5, 47.7, 47.10	48.5, 48.7	49.6, 49.8, 49.10	50.6, 50.9	51.8	52.5, 52.6	53.4, 53.5

Lesson	54	55	56	57	58	59	60	61	62	63
Exercise	54.5, 54.6, 54.9	55.5, 55.8	56.4, 56.8	57.5, 57.6, 57.8	58.6, 58.8	59.4, 59.6, 59.7, 59.8	60.4, 60.5, 60.8, 60.9	61.5, 61.8, 61.10	62.5, 62.8, 62.10	63.5, 63.8, 63.10

Lesson	64	65	66	67	68	69	70
Exercise	64.2, 64.6, 64.8	65.2, 65.5, 65.8	66.2, 66.5, 66.8, 66.9	67.4, 67.10	68.6, 68.9	69.5, 69.8	70.7, 70.8

Number and Operations—Fractions (4.NF)

Extend understanding of fraction equivalence and ordering.

1. Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.

Lesson	16	17	18	19	20	21	22	23	24	25
Exercise	16.3	17.2	18.4	19.7	20.8	21.9	22.9	23.8	24.8	25.9

Lesson	26	27	29	31	33	35	40	42	68	69
Exercise	26.9	27.8	29.9	31.10	33.10	35.2, 35.9	40.9	42.10	68.3	69.2

Lesson	70
Exercise	70.3

Number and Operations—Fractions (4.NF)

Extend understanding of fraction equivalence and ordering.

2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

This standard is first addressed in **Lesson 95.**

Number and Operations—Fractions (4.NF)

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

3. Understand a fraction *a/b* with *a* > 1 as a sum of fractions 1/*b*.
   a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
   b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. *Examples: 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2⅛ = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.*
   c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
   d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.

Lesson	21	22	23	24	25	26	27	28	29	30
Exercise	21.4	22.8	23.5	24.5	25.4	26.8	27.7	28.2	29.3	30.4

Lesson	31	32	33	34	36	37	38	41	42	43
Exercise	31.1	32.2	33.4	34.3	36.11	37.9	38.9	41.7	42.2	43.3

Lesson	44	45	46	47	48	49	50	51	52	53
Exercise	44.2, 44.9	45.8	46.9	47.4	48.6	49.3, 49.10	50.4, 50.9	51.9	52.9	53.9

Lesson	54	55	56	57	58	59	60	61	62	63
Exercise	54.2, 54.9	55.3, 55.9	56.8	57.8	58.8	59.2, 59.8	60.2, 60.9	61.3, 61.7	62.3, 62.7	63.2, 63.3

Lesson	64	65	66	67	68	69	70
Exercise	64.2, 64.5	65.2, 65.8	66.2, 66.9	67.10	68.9	69.8	70.8

Number and Operations—Fractions (4.NF)

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
   a. Understand a fraction *a/b* as a multiple of 1/*b*. *For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).*
   b. Understand a multiple of *a/b* as a multiple of 1/*b*, and use this understanding to multiply a fraction by a whole number. *For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.)*
   c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

Lesson	67	68	69	70
Exercise	67.2	68.3, 68.8	69.7	70.8

Number and Operations—Fractions (4.NF)

Understand decimal notation for fractions, and compare decimal fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. *For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.*

This standard is first addressed in **Lesson 78.**

Number and Operations—Fractions (4.NF)

Understand decimal notation for fractions, and compare decimal fractions.

6. Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.*

Lesson	43	44	45	46	47	48	49	50	51	52
Exercise	43.9	44.8	45.3	46.2, 46.9	47.2, 47.10	48.3	49.7	50.9	51.10	52.9

Lesson	53	54	55	56	57	58	59	60	61	62
Exercise	53.9	54.9	55.9	56.8	57.8	58.8	59.8	60.9	61.9	62.10

Lesson	63	66	68	70
Exercise	63.10	66.9	68.9	70.8

Number and Operations—Fractions (4.NF)

Understand decimal notation for fractions, and compare decimal fractions.

7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

This standard is first addressed in **Lesson 110** and in Blocks 2, 3, and 4 of the Student Practice Software.

Measurement and Data (4.MD)

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. *For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...*

Lesson	59	60	61	62	63	64	65	66	67
Exercise	59.6	60.4	61.5	62.5	63.5	64.8	65.5	66.8	67.10

Measurement and Data (4.MD)

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Lesson	12	13	14	15	16	17	18	19	20	21
Exercise	12.8	13.4, 13.9	14.8	15.3	16.9	17.7	18.7	19.9	20.9	21.10

Lesson	22	24	25	26	27	28	29	30	31	32
Exercise	22.9	24.8	25.9	26.7	27.8	28.6, 28.9	29.5	30.6	31.8	32.5

Lesson	33	34	35	36	37	38	39	40	41	42
Exercise	33.7	34.7	35.7	36.6	37.8	38.6	39.7	40.5	41.6	42.7

Lesson	43	44	45	46	47	48	49	50	51	52
Exercise	43.9	44.9	45.8	46.8	47.5, 47.10	48.5	49.8, 49.10	50.9	51.10	52.9

Lesson	53	54	56	57	58	59	60	61	62	63
Exercise	53.5, 53.9	54.6, 54.9	56.7	57.8	58.7	59.6, 59.8	60.4, 60.6	61.5, 61.10	62.5, 62.10	63.5, 63.10

Lesson	64	65	66	67	68	70
Exercise	64.8	65.5	66.5, 66.8	67.4, 67.10	68.6, 68.9	70.8

Measurement and Data (4.MD)

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

Lesson	5	6	7	8	9	10	11	12	13	14
Exercise	5.6	6.8	7.6	8.2, 8.5	9.5, 9.10	10.9	11.5	12.11	13.6	14.5

Lesson	15	16	17	18	20	21	22	23	24	27
Exercise	15.7	16.6	17.8	18.8	20.10	21.10	22.9	23.8	24.8	27.8

Lesson	29	31	33	34	37	39	40	41	44	48
Exercise	29.9	31.10	33.10	34.9	37.9	39.9	40.9	41.9	44.9	48.10

Lesson	53	55	58	60	62	67
Exercise	53.9	55.9	58.8	60.4	62.10	67.1

Measurement and Data (4.MD)

Represent and interpret data.

4. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. *For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.*

This standard is first addressed in **Lesson 129.**

Measurement and Data (4.MD)

Geometric measurement: understand concepts of angle and measure angles.

5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
   a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles.
   b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees.

Lesson	61	62	63	64	65	66	67	68	69	70
Exercise	61.3	62.2	63.6, 63.9	64.3, 64.5	65.6, 65.8	66.6, 66.9	67.6	68.2	69.6, 69.8	70.5, 70.8

Measurement and Data (4.MD)

Geometric measurement: understand concepts of angle and measure angles.

6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.

This standard is first addressed in **Lesson 121.**

Measurement and Data (4.MD)

Geometric measurement: understand concepts of angle and measure angles.

7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.

Lesson	69	70
Exercise	69.6	70.5

Geometry (4.G)

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

This standard is first addressed in **Lesson 95.**

Geometry (4.G)

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

This standard is first addressed in **Lesson 108.**

Geometry (4.G)

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

This standard is addressed in the following activities of the Student Practice Software:
- **Block 3** Activity 2
- **Block 4** Activity 2
- **Block 5** Activity 3