

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

## Operations and Algebraic Thinking (4.OA)

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$4 \times 3 = 12$   
 $3 \times 4 = 12$   
 $2 \times 6 = 12$   
 $6 \times 2 = 12$   
 $1 \times 12 = 12$   
 $12 \times 1 = 12$

## Operations and Algebraic Thinking (4.OA)

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$4 \times 3 = 12$		$3 \times 4 = 12$	$2 \times 6 = 12$	$6 \times 2 = 12$	$1 \times 12 = 12$	$12 \times 1 = 12$	$4 \times 3 = 12$	$3 \times 4 = 12$	$2 \times 6 = 12$	$6 \times 2 = 12$	$1 \times 12 = 12$	$12 \times 1 = 12$
$4 \times 3 = 12$		$3 \times 4 = 12$	$2 \times 6 = 12$	$6 \times 2 = 12$	$1 \times 12 = 12$	$12 \times 1 = 12$						

$4 \times 3 = 12$		$3 \times 4 = 12$	$2 \times 6 = 12$	$6 \times 2 = 12$	$1 \times 12 = 12$	$12 \times 1 = 12$	$4 \times 3 = 12$	$3 \times 4 = 12$	$2 \times 6 = 12$	$6 \times 2 = 12$	$1 \times 12 = 12$	$12 \times 1 = 12$
$4 \times 3 = 12$		$3 \times 4 = 12$	$2 \times 6 = 12$	$6 \times 2 = 12$	$1 \times 12 = 12$	$12 \times 1 = 12$	$4 \times 3 = 12$	$3 \times 4 = 12$	$2 \times 6 = 12$	$6 \times 2 = 12$	$1 \times 12 = 12$	$12 \times 1 = 12$

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## Operations and Algebraic Thinking (4.OA)

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## 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		

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

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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

## 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  $\frac{1}{2}$ . 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.





## Number and Operations—Fractions (4.NF)





## 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



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Operations and Algebraic Thinking (4.OA)

## 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.

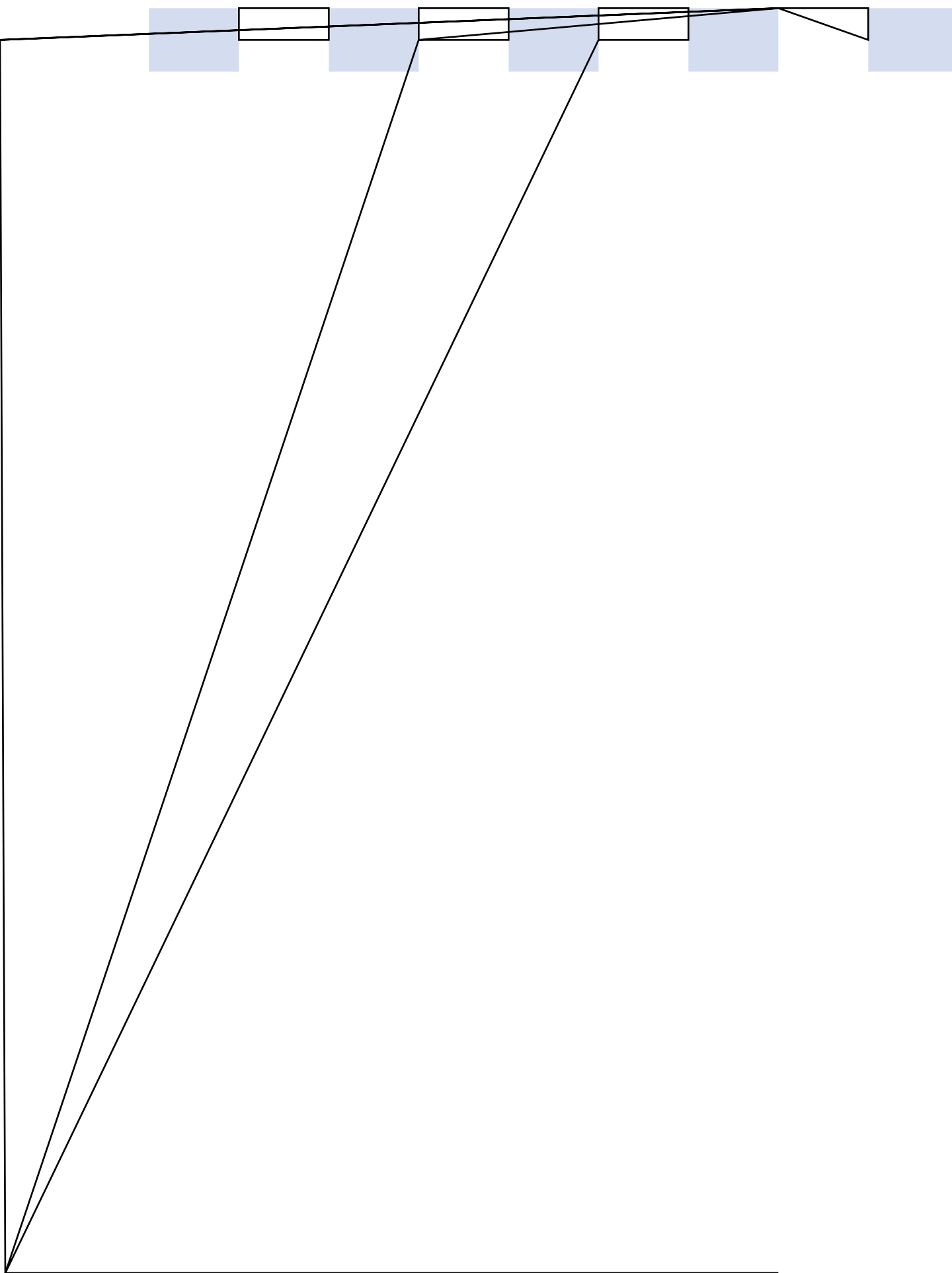





## Number and Operations in Base Ten (4.NBT)

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.





## 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:  $3/8 = 1/8 + 1/8 + 1/8$ ;  $3/8 = 1/8 + 2/8$ ;  
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## 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  $\frac{3}{10}$  as  $\frac{30}{100}$ , and add  $\frac{3}{10} + \frac{4}{100} = \frac{34}{100}$ .

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  $\frac{62}{100}$ ; 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





