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Master Fractions, Grade 4

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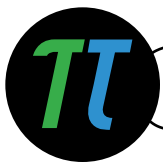


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TABLE OF STANDARDS

The activities in **Master Fractions, Grade 4** address the following standards.

Where are we going? Focus Standards		Activity
(4.3)	Number and operations. The student applies mathematical process standards to represent and generate fractions to solve problems. The student is expected to:	
4.3A	represent a fraction $\frac{a}{b}$ as a sum of fractions $\frac{1}{b}$, where a and b are whole numbers and $b > 0$, including when $a > b$; Supporting Standard	2 , 3 , 8
4.3B	decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations; Supporting Standard	4 , 5 , 8
4.3C	determine if two given fractions are equivalent using a variety of methods; Supporting Standard	9 , 10 , 11 , 12 , 13 , 14 , 15 , 16
4.3D	compare two fractions with different numerators and different denominators and represent the comparison using the symbols $>$, $=$, or $<$; Readiness Standard	9 , 17 , 18 , 19 , 20 , 21 , 22 , 23
4.3E	represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations; Readiness Standard	24 , 25 , 26 , 27 , 28 , 29 , 30 , 31 , 32 , 33 , 34 , 35 , 37
4.3F	evaluate the reasonableness of sums and differences of fractions using benchmark fractions 0 , $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 4 , and 1 , referring to the same whole; Supporting Standard	24 , 28 , 29 , 36 , 37
4.3G	represent fractions and decimals to the tenths or hundredths as distances from zero on a number line. Supporting Standard	6 , 7 , 8

What kind of mathematical thinking will we use? Process Standards		Activity
(4.1)	Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	
4.1A	apply mathematics to problems arising in everyday life, society, and the workplace;	14 , 24 , 26 , 27 , 28 , 29 , 36 , 37
4.1B	use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;	9 , 14 , 16 , 24 , 36 , 37
4.1C	select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;	1 , 2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19 , 20 , 21 , 22 , 23 , 24 , 26 , 27 , 28 , 29 , 30 , 33 , 34 , 35 , 36 , 37
4.1D	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 14 , 15 , 16 , 17 , 22 , 23 , 24 , 25 , 27 , 28 , 29 , 31 , 36 , 37
4.1E	create and use representations to organize, record, and communicate mathematical ideas;	2 , 6 , 8 , 10 , 11 , 16 , 18 , 26 , 27 , 30
4.1F	analyze mathematical relationships to connect and communicate mathematical ideas.	2 , 3 , 4 , 5 , 6 , 7 , 8 , 10 , 14 , 16 , 17 , 23 , 25 , 30 , 36
4.1G	display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	5 , 9 , 11 , 12 , 15 , 16 , 17 , 18 , 22 , 23 , 29 , 32 , 36