



Begin by looking over these two pages to see what's happening. Part I reviews fraction rules. These rules have been applied in Part II. First read the rule, then look down to see it applied. Both charts should be studied across and down.

Part 2 Review of Fractions

I. Definitions and Procedures

	Units 9 and 11 Like Fractions	Units 10 and 11 Unlike Fractions	Units 12 and 13 Mixed Numbers
Key Feature	Same denominator	Different denominators	A whole number with a like or unlike fraction
Operation			
Addition	Add numerators Same denominator	Convert to LCD Same as like fractions	Convert unlike denominators to LCD Add or subtract the fractions You may need to carry or borrow Add or subtract the whole numbers
Subtraction	Subtract numerators Same denominator		
Multiplication	Cancel if possible Multiply numerators Multiply denominators	Same as like fractions	Convert to fractions Same as like fractions
Division	Invert divisor (what you are dividing by) Cancel if possible Multiply		

Note: Always reduce answers to lowest terms!

II. Example

	Like Fractions	Unlike Fractions	Mixed Numbers	
Key Feature	Same Denominator	Different Denominators	Whole Numbers with	
Operation			Like Fractions	Unlike Fractions
Addition	$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$	$\frac{2}{3} + \frac{1}{2}$ $\frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6}$ $\frac{+1}{2} = \frac{1 \times 3}{2 \times 3} = \frac{+3}{6}$ $\frac{7}{6} = 1\frac{1}{6}$	$4\frac{3}{5} + 2\frac{1}{5}$ $4\frac{3}{5}$ $\frac{+2}{5}$ $6\frac{4}{5}$	$4\frac{1}{2} + 2\frac{2}{3}$ $4\frac{1}{2} = 4 + \frac{1 \times 3}{2 \times 3} = 4\frac{3}{6}$ $\frac{+2}{3} = 2 + \frac{2 \times 2}{3 \times 2} = \frac{+2}{6}$ $6\frac{7}{6} = 7\frac{1}{6}$
Subtraction	$\frac{3}{5} - \frac{1}{5} = \frac{2}{5}$	$\frac{2}{3} - \frac{1}{2}$ $\frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6}$ $\frac{-1}{2} = \frac{1 \times 3}{2 \times 3} = \frac{-3}{6}$ $\frac{1}{6}$	$4\frac{3}{5} - 2\frac{1}{5}$ $4\frac{3}{5}$ $\frac{-2}{5}$ $2\frac{2}{5}$	$4\frac{1}{2} - 2\frac{2}{3}$ $4\frac{1}{2} = 4 + \frac{1 \times 3}{2 \times 3} = 4\frac{3}{6} = 3\frac{9}{6}$ $\frac{-2}{3} = 2 + \frac{2 \times 2}{3 \times 2} = -2\frac{4}{6} = -2\frac{4}{6}$ $1\frac{5}{6}$
Multiplication	$\frac{3}{5} \times \frac{1}{5} = \frac{3}{25}$	$\frac{2}{3} \times \frac{1}{2}$ $= \frac{2 \times 1}{3 \times 2} = \frac{2}{6}$ reduce $\frac{2 \div 2}{6 \div 2} = \frac{1}{3}$	$4\frac{3}{5} \times 2\frac{1}{5}$ $= \frac{23}{5} \times \frac{11}{5} = \frac{23 \times 11}{5 \times 5}$ $= \frac{253}{25} = 10\frac{3}{25}$	$4\frac{1}{2} \times 2\frac{2}{3}$ $= \frac{9}{2} \times \frac{8}{3} = \frac{12}{1} = 12$
Division	$\frac{3}{5} \div \frac{1}{5}$ $= \frac{3}{1} \times \frac{5}{1}$ $= \frac{3}{1} = 3$	$\frac{2}{3} \div \frac{1}{2}$ $= \frac{2}{3} \times \frac{2}{1}$ $= \frac{4}{3} = 1\frac{1}{3}$	$4\frac{3}{5} \div 2\frac{1}{5}$ $= \frac{23}{5} \div \frac{11}{5} = \frac{23}{5} \times \frac{5}{11}$ $= \frac{23}{11} = 2\frac{1}{11}$	$4\frac{1}{2} \div 2\frac{2}{3}$ $= \frac{9}{2} \div \frac{8}{3} = \frac{9}{2} \times \frac{3}{8}$ $= \frac{27}{16} = 1\frac{11}{16}$