



Year:	6	Unit:	Fractions
What will I learn this year?			

Key Vocabulary	Simplify Fractions	Compare and Order Fractions
numerator	$\frac{9}{12} = \frac{3}{4}$ Factors of 9: 1, <u>3</u>, 9 Factors of 12: 1, 2, <u>3</u>, 4, 6, 12	Use the Common Denominator Multiples of 5: 5, 10, 15 Multiples of 3: 3, 6, 9, 12, 15 $\frac{3}{5} = \frac{9}{15}$ $\frac{9}{15} < \frac{10}{15}$ $\frac{2}{3} = \frac{10}{15}$
denominator		Use the Common Numerator Multiples of 5: 5, 10, 15 Multiples of 10: 10, 20 $\frac{5}{8} = \frac{10}{16}$ $\frac{10}{16} < \frac{10}{13}$ $\frac{10}{13} = \frac{10}{13}$
proper fraction		
improper fraction		
factor		
highest common multiple		
lowest common multiple		
equivalents		
common numerator		
common denominator		
decimal equivalent		
simplify		
simplest form		
mixed number		
whole number		
mixed number		

Adding and Subtracting Proper Fractions

Same Denominators



$$\frac{4}{7} + \frac{2}{7} = \frac{6}{7}$$



$$\frac{8}{11} - \frac{3}{11} = \frac{5}{11}$$

Different Denominators

$$\frac{2}{7} + \frac{3}{5}$$

Multiples of 7: 7, 14, 21, 28, 35
Multiples of 5: 5, 10, 15, 20, 25, 30, 35

$$\frac{2}{7} = \frac{10}{35}, \frac{3}{5} = \frac{21}{35}$$

$$\frac{10}{35} + \frac{21}{35} = \frac{31}{35}$$

$$\frac{9}{10} - \frac{1}{4}$$

Multiples of 10: 10, 20
Multiples of 4: 4, 8, 12, 16, 20

$$\frac{9}{10} = \frac{18}{20}, \frac{1}{4} = \frac{5}{20}$$

$$\frac{18}{20} - \frac{5}{20} = \frac{13}{20}$$

Multiplying Proper Fractions

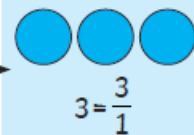
Multiplying Fractions by Fractions

$$\frac{1}{2} \times \frac{1}{3} = \frac{1 \times 1}{2 \times 3} = \frac{1}{6}$$

Multiplying Fractions by Whole Numbers



$$\frac{2}{5} \times 3$$



$$3 = \frac{3}{1}$$

$$\frac{2}{5} \times \frac{3}{1} = \frac{6}{5} = 1 \frac{1}{5}$$

Adding and Subtracting Mixed Numbers

Add or subtract the whole numbers and fractions separately.

$$2 \frac{2}{5} + 1 \frac{3}{10}$$

$$2 + 1 = 3$$

$$\frac{2}{5} + \frac{3}{10} = \frac{4}{10} + \frac{3}{10} = \frac{7}{10}$$

$$3 + \frac{7}{10} = 3 \frac{7}{10}$$

$$2 \frac{1}{2} - 1 \frac{1}{4}$$

$$2 - 1 = 1$$

$$\frac{1}{2} - \frac{1}{4} = \frac{2}{4} - \frac{1}{4} = \frac{1}{4}$$

$$1 + \frac{1}{4} = 1 \frac{1}{4}$$

Convert the mixed numbers to improper fractions.

$$2 \frac{2}{5} + 1 \frac{3}{10}$$

$$2 \frac{1}{2} - 1 \frac{1}{4}$$

$$2 \frac{2}{5} = \frac{12}{5}$$

$$1 \frac{3}{10} = \frac{13}{10}$$

$$2 \frac{1}{2} = \frac{5}{2}$$

$$1 \frac{1}{4} = \frac{5}{4}$$

$$\frac{12}{5} + \frac{13}{10} = \frac{24}{10} + \frac{13}{10} = \frac{37}{10}$$

$$\frac{37}{10} = 3 \frac{7}{10}$$

$$\frac{5}{2} - \frac{5}{4} = \frac{10}{4} - \frac{5}{4} = \frac{5}{4}$$

$$\frac{5}{4} = 1 \frac{1}{4}$$

Dividing Fractions by Whole Numbers

$$\frac{2}{5} \div 2 = \frac{1}{5}$$

Multiplication and division are the inverse of one another so:

$\div 2$ is the same as $\times \frac{1}{2}$

$$\frac{2}{5} \times \frac{1}{2} = \frac{2}{10}$$

