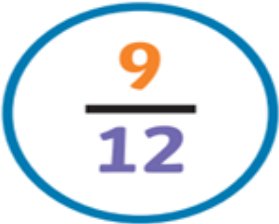
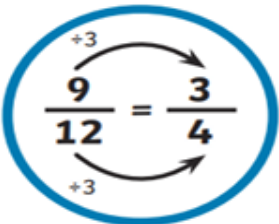
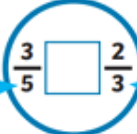
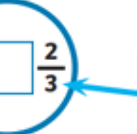

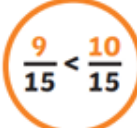
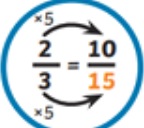
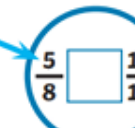

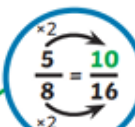
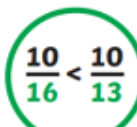
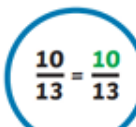




Year 6 Fractions

Key Vocabulary	Simplify Fractions	Compare and Order Fractions
numerator	<div style="text-align: center;">  <p>Factors of 9: 1, 3, 9</p> <p>Factors of 12: 1, 2, 3, 4, 6, 12</p> <div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid orange; width: 100px; height: 20px; background-color: orange;"></div> <div style="border: 1px solid purple; width: 100px; height: 20px; background-color: purple;"></div> </div> </div>	<div style="text-align: center;"> <p>Use the Common Denominator</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid blue; width: 100px; height: 20px; background-color: blue;"></div> <div style="text-align: center;"> <p>Multiples of 5: 5, 10, 15</p>  </div> <div style="text-align: center;"> <p>Multiples of 3: 3, 6, 9, 12, 15</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin: 10px 0;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid orange; width: 100px; height: 20px; background-color: orange;"></div> <div style="border: 1px solid orange; width: 100px; height: 20px; background-color: orange;"></div> </div> <p>Use the Common Numerator</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Multiples of 5: 5, 10, 15</p>  </div> <div style="text-align: center;"> <p>Multiples of 10: 10, 20</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin: 10px 0;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid green; width: 100px; height: 20px; background-color: green;"></div> <div style="border: 1px solid green; width: 100px; height: 20px; background-color: green;"></div> </div> </div>
denominator		
proper fraction		
improper fraction		
highest common multiple		
lowest common multiple		
equivalents		
common numerator		
common denominator		
decimal equivalent		
simplify		
mixed number		
whole 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**

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

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

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

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

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

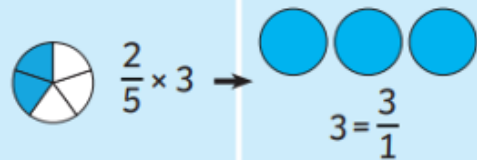
$$\frac{18}{20} - \frac{5}{20} = \frac{13}{20}$$

Multiplying Proper Fractions

Multiplying Fractions by Fractions

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

Multiplying Fractions by Whole Numbers



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

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 $\times \frac{1}{2}$

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

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.

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

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

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

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

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

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

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

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

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

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