



Year:	5	Unit:	Fractions
What will I learn this year?			

Key Vocabulary

numerator

denominator

unit fraction

non-unit fraction

whole

equivalent

mixed number

improper fraction

simplest form

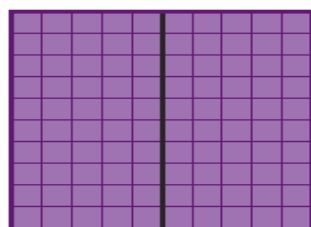
multiple

common denominator

common numerator

Equivalent Fractions

To find equivalent fractions, we multiply or divide the numerator and denominator by the same number.

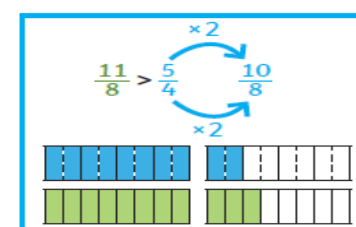
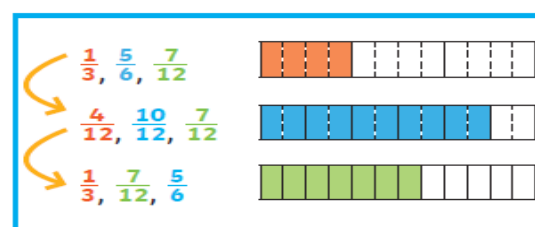


$$\frac{1}{2} \xrightarrow{\times 5} \frac{5}{10} \xrightarrow{\times 10} \frac{50}{100}$$

$$\frac{50}{100} \xrightarrow{\times 5} \frac{5}{10} \xrightarrow{\times 10} \frac{1}{2}$$

Compare and Order Fractions

We can compare and order fractions by using common denominators.



Mixed Numbers

Mixed numbers contain a whole number and a fraction.

whole $\rightarrow 2\frac{1}{4}$ fraction

Convert an Improper Fraction to a Mixed Number

$$\frac{9}{4}$$

$$9 \div 4 = 2 \text{ r } 1$$

Divide the numerator by the denominator.

This shows you the whole number and the fraction.

Improper Fractions

An improper fraction has a numerator which is greater than or equal to the denominator.

$$\frac{5}{3}$$

Convert a Mixed Number to an Improper Fraction

Multiply the whole by the denominator to make an improper fraction.

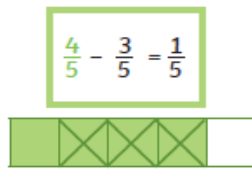
$$2\frac{5}{6} = \frac{12}{6} + \frac{5}{6} = \frac{17}{6}$$

Add the fractions together.

Adding and Subtracting Fractions

To add or subtract fractions with denominators that are multiples of the same number, we must change one fraction to have the same denominator.

$$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$$



$$\frac{4}{5} - \frac{3}{5} = \frac{1}{5}$$



$$\frac{1}{4} + \frac{3}{8} = \frac{2}{8} + \frac{3}{8} = \frac{5}{8}$$

$$\frac{5}{6} - \frac{2}{3} = \frac{5}{6} - \frac{4}{6} = \frac{1}{6}$$



Add Fractions Where the Total is Greater Than 1

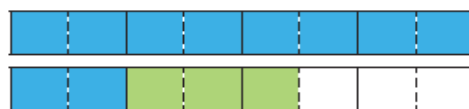
$$\frac{1}{2} + \frac{3}{4} + \frac{5}{8} = \frac{4}{8} + \frac{6}{8} + \frac{5}{8} = \frac{15}{8} = 1\frac{7}{8}$$



Add Mixed Numbers

$$1\frac{1}{4} + \frac{3}{8} = 1\frac{2}{8} + \frac{3}{8} = 1 + \frac{5}{8} = 1\frac{5}{8}$$

$$1\frac{1}{4} + \frac{3}{8} = \frac{5}{4} + \frac{3}{8} = \frac{10}{8} + \frac{3}{8} = \frac{13}{8} = 1\frac{5}{8}$$



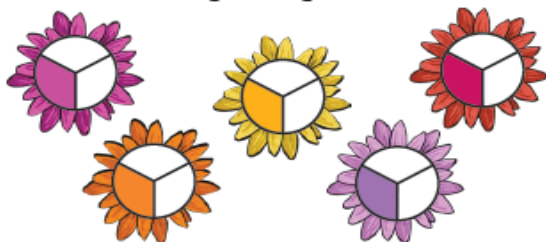
Subtract from a Mixed Number

$$1\frac{2}{3} - \frac{2}{9} = 1\frac{4}{9} - \frac{2}{9} = 1\frac{2}{9}$$

starting number	find the equivalent fraction	subtract

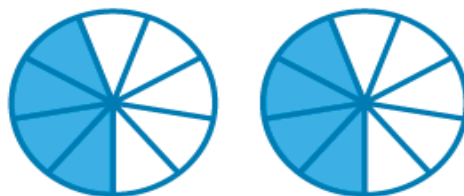
Multiply Unit Fractions by an Integer

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



Multiply Non-Unit Fractions by an Integer

$$2 \times \frac{4}{9} = \frac{8}{9}$$



Subtract Two Mixed Numbers

$$2\frac{3}{4} - 1\frac{5}{8} = 1\frac{1}{8}$$



$$2 - 1 = 1$$

$$\frac{3}{4} - \frac{5}{8} = \frac{1}{8}$$

Multiply Mixed Numbers by Integers

Convert to an improper fraction and multiply the numerator by the integer.

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

=

$$\frac{9}{4} \times 2$$

=

$$\frac{18}{4}$$

=

$$4\frac{2}{4}$$

=

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



Use repeated addition.

$$2\frac{1}{4} \times 2 = 2\frac{1}{4} + 2\frac{1}{4} = 4\frac{2}{4} = 4\frac{1}{2}$$

Subtract from a Mixed Number - Breaking the Whole

$$2\frac{1}{4} - \frac{3}{8} = 2\frac{2}{8} - \frac{3}{8} = 1\frac{10}{8} - \frac{3}{8} = 1\frac{7}{8}$$

