

Comparing and Ordering Fractions

Using Common Denominators



Multiples of 5:
5, 10, 15

Multiples of 3:
3, 6, 9, 12, 15

$$\frac{3}{5} = \frac{9}{15}$$

(x3)

$$\frac{9}{15} < \frac{10}{15}$$

$$\frac{2}{3} = \frac{10}{15}$$

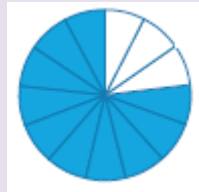
(x5)

Using Common Numerators

$\frac{5}{8}$



$\frac{10}{13}$



$$\frac{5}{8} = \frac{10}{16}$$

(x2)

$$\frac{10}{16} < \frac{10}{13}$$

Simplifying Fractions

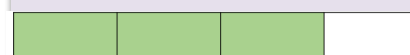
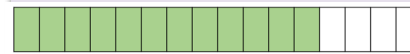
$$\frac{12}{16}$$

Factors of 12: 1, 2, 3, 4, 6, 12

Factors of 16: 1, 2, 4, 8, 16

$$\frac{12}{16} = \frac{3}{4}$$

(÷4)

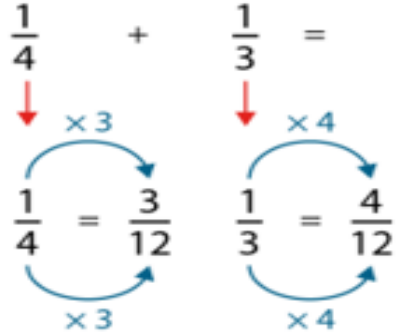


Vocabulary

numerator	Top number in a fraction. Shows how many parts we have
denominator	Bottom number in a fraction. Shows how many equal parts in the whole
factor	Numbers we can multiply together to get another number
highest common factor	The largest factor that 2 numbers share.
multiple	The result of multiplying a number by an integer
lowest common multiple	The smallest number that is a multiple of 2 or more numbers
equivalent	Having the same value
Simplify/ simplest form	Make a fraction as simple as possible by dividing numerator and denominator
proper fraction	The numerator is less than the denominator – value is less than 1 whole
improper fraction	The numerator is greater than the denominator – value is greater than 1 whole
mixed number	A whole number and a fraction part

Adding Fractions

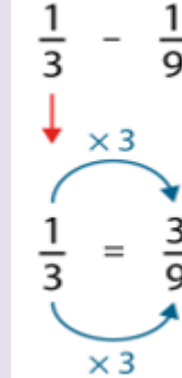
$$\frac{1}{4} + \frac{1}{3}$$



$$\frac{3}{12} + \frac{4}{12} = \frac{7}{12}$$

Subtracting Fractions

$$\frac{1}{3} - \frac{1}{9}$$



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

To add or subtract fractions, the denominators must be the same

Mixed Numbers

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

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

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

Mixed Numbers

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

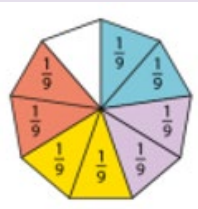
$$3 \frac{3}{4} - 1 \frac{2}{4} = 2 \frac{1}{4}$$

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

Multiplying Fractions

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

numerator x whole number



$$\frac{1}{3} \times \frac{1}{5} = \frac{1}{15}$$

*numerator x numerator
denominator x denominator*

Dividing Fractions

$$\frac{1}{3} \div 4 = \frac{1}{12} = \frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$$

