

# Fractions and the four operations.

## Key Words

Fraction

Numerator

Denominator

Lowest common multiple

Highest common factor

Simplify

Compare

Order

Add

Subtract

Multiply

Divide

Integer

## Simplifying

Alex is simplifying  $\frac{8}{12}$  by dividing the numerator and denominator by their highest common factor.

Factors of 8: 1, 2, **4**, 8  
Factors of 12: 1, 2, 3, **4**, 6, 12  
4 is the highest common factor.

$$\begin{array}{c} \div 4 \\ \frac{8}{12} = \frac{2}{3} \\ \div 4 \end{array}$$



## Comparing and Ordering

Dora is comparing  $\frac{5}{6}$  and  $\frac{3}{4}$  by finding the lowest common multiple of the denominators.

Multiples of 6: 6, **12**, 18, 24

Multiples of 4: 4, 8, **12**, 16,  
12 is the LCM of 4 and 6

$$\frac{5}{6} = \frac{10}{12} \quad \frac{3}{4} = \frac{9}{12}$$
$$\frac{10}{12} > \frac{9}{12}$$



To add or subtract, make sure that your denominators are the same. Then, add or subtract the numerators and keep the denominators the same!

Adding or subtracting mixed numbers...



$$1\frac{1}{3} + 2\frac{1}{6} = 3 + \frac{3}{6} = 3\frac{3}{6} \text{ or } 3\frac{1}{2}$$

Add the fractions by adding the whole first and then the fractions. Give your answer in its simplest form.

$$1 + 2 = 3$$

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