



# FRACTIONS FOUR RULES OF NUMBER



## + Addition - Common Denominators +

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

x2

Mixed Numbers:

$$1\frac{1}{3} + 2\frac{3}{4} = 1\frac{4}{12} + 2\frac{9}{12} = 3\frac{13}{12} = 4\frac{1}{12}$$

x3

x4

'What you do to the top, you do to the bottom'

## - Subtraction - Common Denominators

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

x4

Mixed Numbers: Change to improper fractions first

$$4\frac{2}{3} - 1\frac{1}{4} = \frac{14}{3} - \frac{5}{4} = \frac{56}{12} - \frac{15}{12} = \frac{41}{12} = 3\frac{5}{12}$$

x3

x4

'What you do to the top, you do to the bottom'

## × Multiplication ×

Whole Number:

$$3 \times \frac{5}{8} = \frac{3}{1} \times \frac{5}{8} = \frac{15}{8} = 1\frac{7}{8}$$

Proper Fractions:

$$\frac{3}{4} \times \frac{4}{5} = \frac{12}{20} = \frac{3}{5}$$

Multiply the top and the bottom.

Mixed Numbers:

$$1\frac{2}{7} \times 1\frac{3}{8} = \frac{9}{7} \times \frac{11}{8} = \frac{99}{56}$$

'Just multiply'  
Cross-cancelling is taught in year 8

## ÷ Division - K.F.C.

Whole Number:

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

Proper Fractions:

$$\frac{2}{3} \div \frac{5}{6} = \frac{2}{3} \times \frac{6}{5} = \frac{12}{15} = \frac{4}{5}$$

Keep the first > Flip the second > Change the sign to x