

Addition

Column Addition

$$19.01 + 3.65 + 0.7 =$$

7	5	4	9			1	9	.	0	1	
+	6	8	5	3			3	.	6	5	
1	4	4	0	2		+	0	.	7	0	
Place holder 0											
1	1	1					2	3	.	3	6
Place holder 0											
							1	1			

£	1	2	.	8	5	
+	£		8	.	7	6
£	2	1	.	6	1	
	1	1		1		

'Exchange'



FOUR RULES OF NUMBER

Subtraction

Column subtraction

$$43762 - 9354 =$$

$$225.7 - 82.34 =$$

3	3	7	5	2			2	5	5	.	7	0
-	9	3	5	4			-	8	2	.	3	4
Place holder 0												
3	4	4	0	8			1	7	3	.	3	6

'Exchange'



Multiplication

Short Multiplication

Long Multiplication

5	4	6	3	
x			9	
4	9	1	6	7
4	5	2		

2	4	7		
x	2	3		
7	4	1		
+	4	9	4	0
5	6	8	1	
1				

x10 then x2
Place holder 0

'Lots of'



Division

Short division by 1 digit

Short division by 2 digits

1	4	4	5	÷	4	
	0	3	6	1	r	1
4	1	14	24	5		
or	3	6	1	.	2	5
or	3	6	1	1/4		

4	5	5	0	÷	1	4	
		0	3	2	5		
1	4	4	45	35	70		
Multiples of 14:							
1	4	2	8	4	2	5	6
7	0	8	4				

'Groups of'



FRACTIONS FOUR RULES OF NUMBER



+ Addition - Common Denominators **+**

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

Mixed Numbers:

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

‘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:

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

Mixed Numbers:

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

Multiply the top and the bottom.

‘Just multiply’
Cross-cancelling is taught in year 8

- Subtraction - Common Denominators **-**

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

Mixed Numbers: Change to improper fractions first

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

‘What you do to the top, you do to the bottom’

÷ 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