
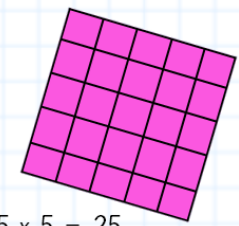
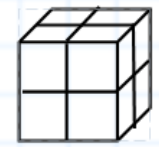


Why are times tables useful?

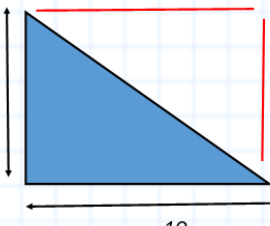
 $3^2 = 3 \times 3 = 9$
 $5^2 = 5 \times 5 = 25$

Square and cube numbers

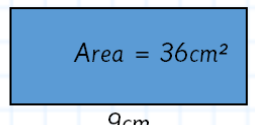

 $2^3 = 2 \times 2 \times 2 = 8$

Multiples and common multiples

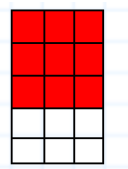
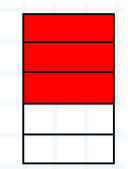
Multiples of 3: 3, 6, 9, 12, 18, 21, 24
 Multiples of 4: 4, 8, 12, 16, 20, 24, 28, 32


 $(b \times h) \div 2$

Area of rectangles, triangles and parallelograms


 Area = 36cm^2

Simplifying fractions

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


Finding a fraction or percentage of a number

$\frac{3}{4}$ of 48
 $48 \div 4 = 12$
 dividing by 4 finds one quarter.
 $12 \times 3 = 36$
 multiplying by 3 finds 3 quarters

Adding, subtracting, multiplying and dividing fractions

$\frac{7}{4} + \frac{11}{8} = \frac{14}{8} + \frac{11}{8} = \frac{25}{8}$
 $\frac{25}{8} = 3\frac{1}{8}$

Identifying prime and composite numbers

A prime number is a whole number greater than 1 with no divisors except 1 and itself.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Factors and common factors

$3 \times 6 = 18$ (product)
 $1 \times 3 \times 6$
 $2 \times 1 \times 8$
 $3 \times 1 \times 2$
 4×9
 6×6

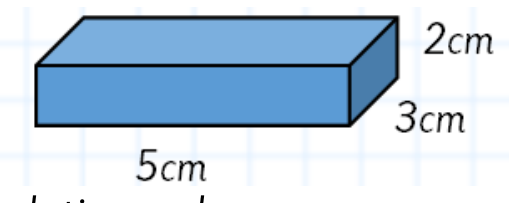
Short and long division

156
 $4 \overline{) 625}$
 2 2

Converting between mixed and improper fractions

$1\frac{3}{4} = \frac{7}{4}$
 multiply

Calculating volume



Volume = $5 \times 3 \times 2$

Using algebraic rules

Rule: $5n - 4$
 1st term: $5 \times 1 - 4 = 1$
 2nd term: $5 \times 2 - 4 = 6$
 3rd term: $5 \times 3 - 4 = 11$
 4th term: $5 \times 4 - 4 = 16$
 5th term: $5 \times 5 - 4 = 21$

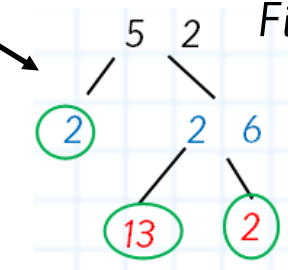
Short and long multiplication

853×32
 $853 \times 2 = 1706$
 $853 \times 30 = 25590$
 Total: 27296

Ordering and comparing fractions

$\frac{2}{3} \times 4 = \frac{8}{3}$
 $\frac{3}{4} \times 3 = \frac{9}{4}$

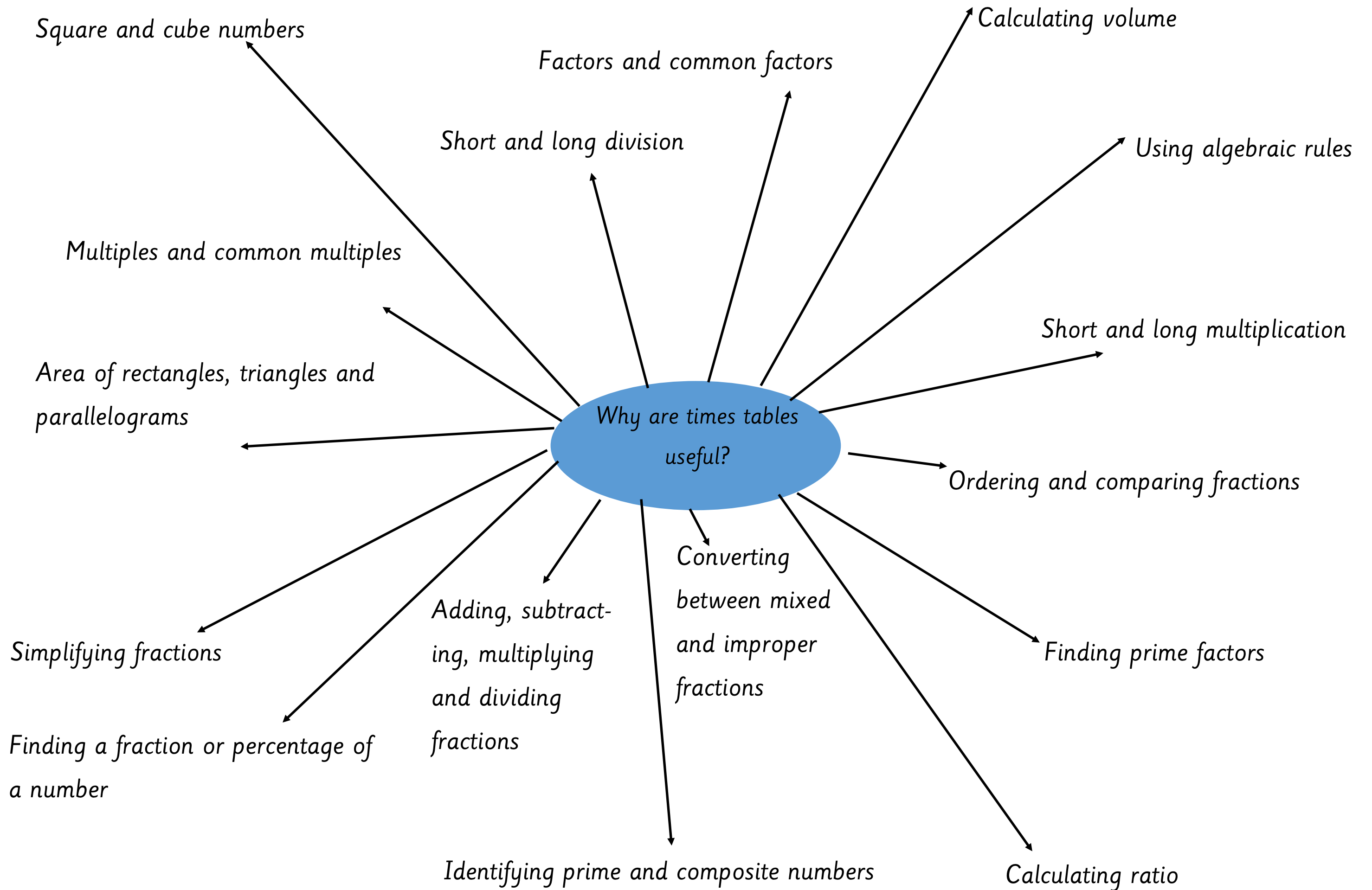
Finding prime factors

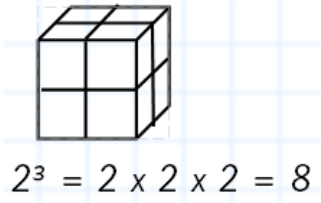
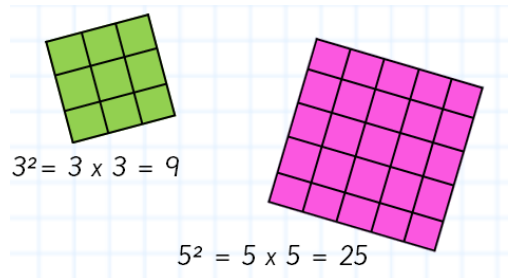


Calculating ratio

A prize is shared in a ratio of 3 : 4 between Jamie and Dan. If Jamie gets £21, how much will Dan get?

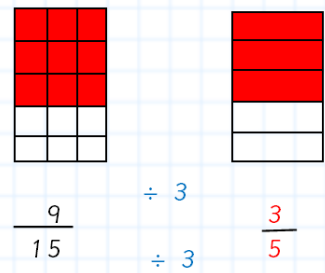
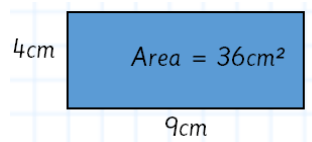
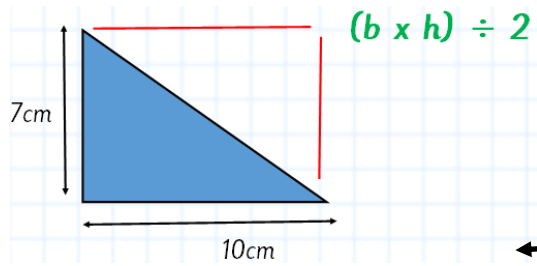
Jamie : Dan
 3 : 4
 $21 : 28$





Multiples of 3: 3, 6, 9, 12, 18, 21, 24

Multiples of 4: 4, 8, 12, 16, 20, 24, 28, 32



$\frac{3}{4}$ of 48

$48 \div 4 = 12$

dividing by 4 finds one quarter.

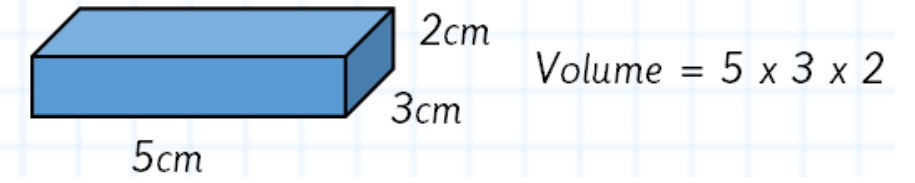
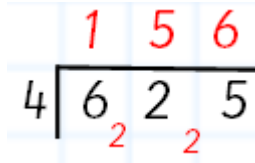
$12 \times 3 = 36$

multiplying by 3 finds 3 quarters

	3	6
1 x	3	6
2 x	1	8
3 x	1	2
4 x	9	
6 x	6	

product

4	8	3	6
1 x	4	8	1 x 3 6
2 x	2	4	2 x 1 8
3 x	1	6	3 x 1 2
4 x	1	2	4 x 9
6 x	8	6 x 6	



Rule: $5n - 4$

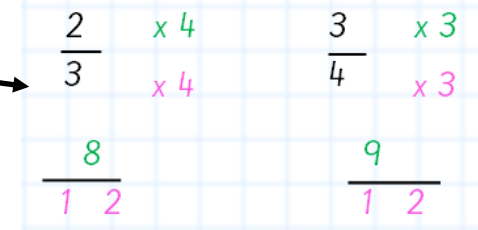
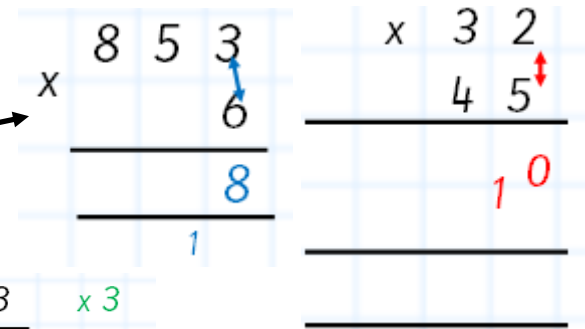
1st term: $5 \times 1 - 4 = 1$

2nd term: $5 \times 2 - 4 = 6$

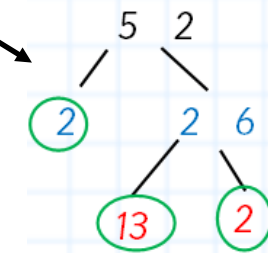
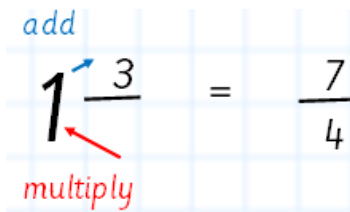
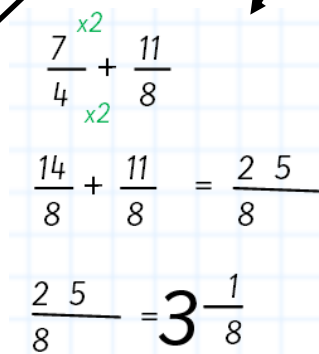
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4th term: $5 \times 4 - 4 = 16$

5th term: $5 \times 5 - 4 = 21$



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