

adding and subtracting fractions

$$\frac{2}{3} + \frac{4}{5} = \frac{10}{15} + \frac{12}{15} = \frac{22}{15}$$

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comparing and ordering fractions

$$\frac{2}{3} \times \frac{5}{5} = \frac{10}{15}$$

$$\frac{10}{15} \times \frac{4}{4} = \frac{40}{60}$$

finding equivalent fractions

multiplying pairs of fractions

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

dividing fractions by whole numbers

$$\frac{3}{5} \div 4 = \frac{3}{20}$$

converting between mixed numbers and improper fractions

$$\frac{14}{3} = 4\frac{2}{3}$$

factors and common factors

24	32
1	1
2	2
3	4
4	8

square and cube numbers

$$4^2 = 4 \times 4 = 16$$

$$4^3 = 4 \times 4 \times 4 = 64$$

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using known facts

If $3 \times 2 = 6$ then...
 $30 \times 2 = 60$
 $3,000 \times 2 = 6,000$
 $0.3 \times 2 = 0.6$
 $600 \div 2 = 300$

short division

	1	2	5
5	6	2	5
		1	2

short and long multiplication

	4	3	4
x			7
3	0	3	8
	2	2	

	4	3	6
x			2
1	3	0	8
	8	7	2
1	0	0	2
			8

identifying prime and composite numbers

7
1 7

prime

8
1 8
2 4

composite

18
1 18
2 9
3 6

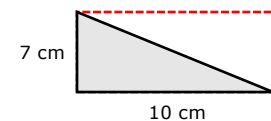
composite

Why are times tables useful?

Calculating areas of rectangles, triangles and parallelograms

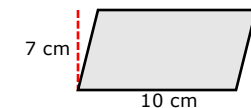


$$9 \text{ cm} \times 4 \text{ cm} = 36 \text{ cm}^2$$



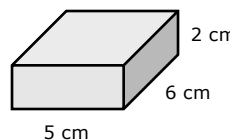
$$7 \text{ cm} \times 10 \text{ cm} = 70 \text{ cm}^2$$

$$70 \text{ cm}^2 \div 2 = 35 \text{ cm}^2$$



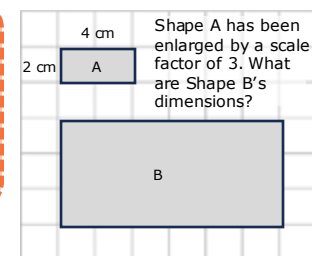
$$7 \text{ cm} \times 10 \text{ cm} = 70 \text{ cm}^2$$

calculating volume



$$5 \text{ cm} \times 3 \text{ cm} \times 2 \text{ cm} = 30 \text{ cm}^3$$

using scale factors with shapes and amounts



calculating and simplifying ratios

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
 $\times 7 \left(\begin{array}{c} 3 : 4 \\ \text{£21} : \text{£28} \end{array} \right) \times 7$



multiples and common multiples

Multiples of 2: 2, 4, 6, 8, 10, 12, 14

Multiples of 3: 3, 6, 9, 12, 15, 18, 21

using algebraic rules

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

recipe

2 servings	1 serving	8 servings
400 ml milk	200 ml milk	1,600 ml milk
600 g fruit	300 g fruit	2,400 g fruit
80 g sugar	40 g sugar	320 g sugar