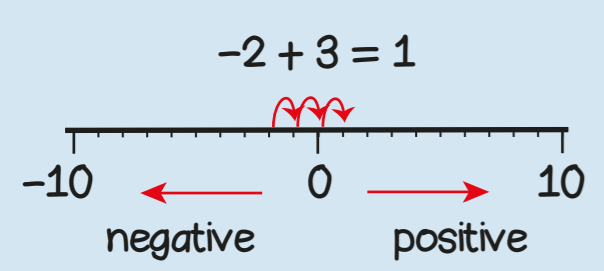
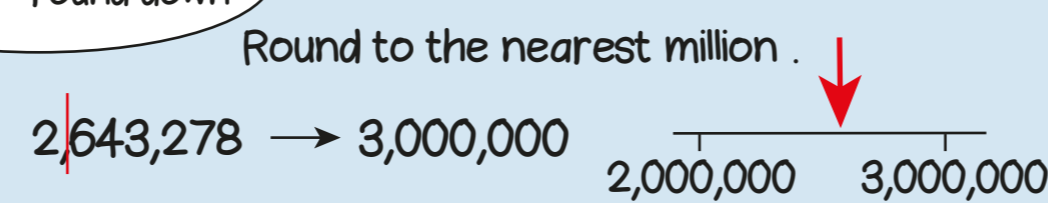


two million, five hundred and forty-three thousand, two hundred and forty-one
 2 millions, 5 hundred thousands, 4 ten thousands, 3 thousands, 2 hundreds, 4 tens and 1 one



5 or more - round up
 4 or less - round down



Multiplying and dividing by 10, 100 and 1000

| M | HTh | TTh | Th | 100s | 10s | 1s | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
|---|-----|-----|----|------|-----|----|----------------|-----------------|------------------|
| | | | | 1 | 3 | 6 | | | |
| | | | | 1 | 3 | 6 | ← | | |
| | | 1 | 3 | 6 | 0 | 0 | ← | | |
| | | | | | | 1 | 3 | 6 | |
| | | | | | | 0 | 1 | 3 | 6 |

Ten times greater

Ten times smaller

13.6 x 10 move digits one place left

13.6 x 1000 move digits 3 places left

13.6 ÷ 10 move digits one place right

13.6 ÷ 100 move digits 2 places right

millions digit round multiple positive negative

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

A prime number has exactly 2 factors:
 2, 3, 5, 7, 11, 13, 17, 19...

15 and 21 have the common factors 1 and 3

15 and 21 are common multiples of 3

prime common multiple factor multiplier divisor

If I know... then I also know... because...

$0.8 \times 7 = 8 \times 7 \div 10$
 $4.2 \times 5 = 42 \div 2$ $56,000 \div 80 = 700$

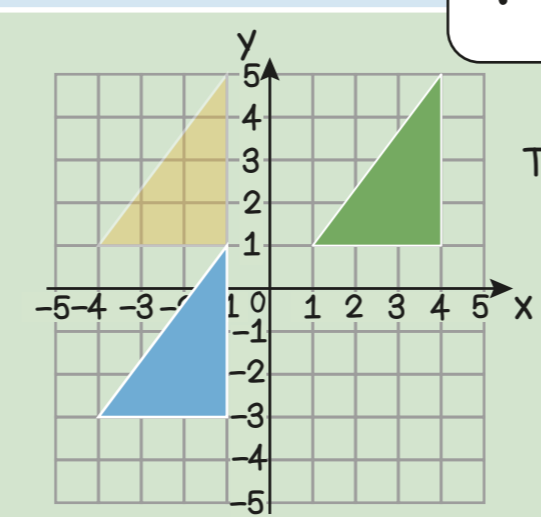
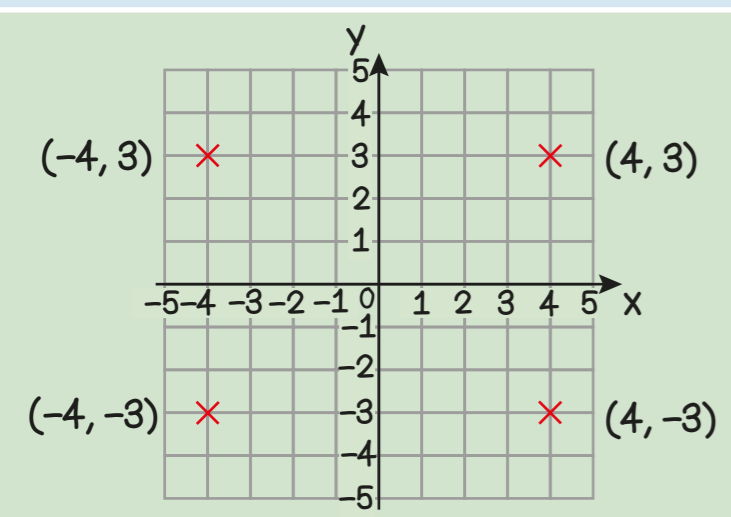
2427
 x 38
 19416
 72810
 92226

0139r3
 24 | 3339
 0139.125
 24 | 3339.000

| | |
|----|-----|
| 1 | 24 |
| 2 | 48 |
| 3 | 72 |
| 4 | 96 |
| 5 | 120 |
| 6 | 144 |
| 7 | 168 |
| 8 | 192 |
| 9 | 216 |
| 10 | 240 |

$3339 \div 24 = 139 \text{ r}3 = 139 \frac{3}{24}$
 $= 139.13$ (to 2dp)

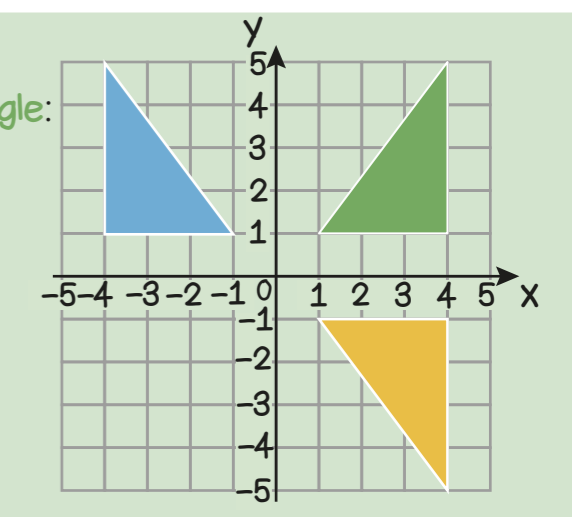
Year 6 Term 1



Translate the triangle 5 squares left and 4 squares down.

object image plot reflect translate

Reflect the triangle: in the x axis in the y axis



Simplify $\frac{7}{14}$

7 and 14 have the common factor 7

$$\frac{7}{14} = \frac{1}{2}$$

$\div 7$

Compare

$\frac{3}{8} < \frac{3}{7}$

$\frac{3}{7} < \frac{3}{6}$

$\frac{3}{6} < \frac{3}{5}$

The larger the denominator the smaller the equal parts.

$\frac{3}{4}$ and $\frac{2}{3}$ have the common denominator 12

so $\frac{3}{4} > \frac{2}{3}$ because $\frac{9}{12} > \frac{8}{12}$

Order

$\frac{5}{6}$ more than $1\frac{1}{2}$

$\frac{2}{5}$ less than $1\frac{1}{2}$

$\frac{8}{7}$ more than 1

$1\frac{3}{4}$ more than $1\frac{1}{2}$

Order of Operations

$6 - 2 + 4 = 8$ Only addition and subtraction - complete the calculation from left to right

$6 \div 2 \times 4 = 12$ Only multiplication and division - complete the calculation from left to right

$6 + 4 \times 2 = 14$ Complete multiplication before addition or subtraction

$(6 + 4) \times 2 = 20$ Complete the calculations in brackets first

$6^2 + 4 \div 2 = 20$ Calculate indices before other operations

If I know... then I also know... because...

$0.75 = \frac{3}{4}$

$0.5 = \frac{1}{2}$

$0.33... = \frac{1}{3}$

$0.25 = \frac{1}{4}$

$0.2 = \frac{1}{5}$

$0.1 = \frac{1}{10}$

So $0.3 = 30\% = \frac{3}{10}$

75%

50%

33.33...%

25%

20%

10%

$\frac{1}{5} = 0.2$ so

$\frac{2}{5} = 0.125$

$\frac{1}{4} = 0.25 = \frac{2}{8}$ so

$\frac{1}{8} = 0.125$

simplify equivalent proper improper percent

Year 6 Term 2

The sum of the angles at a point on a straight line is 180°

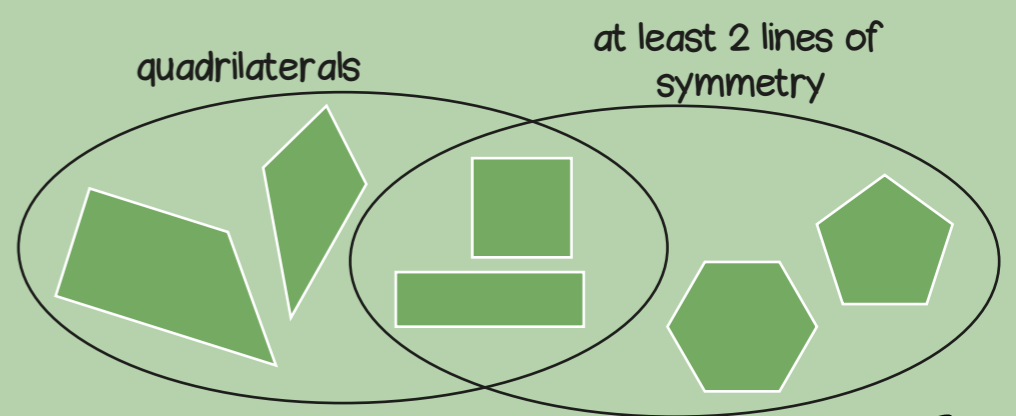
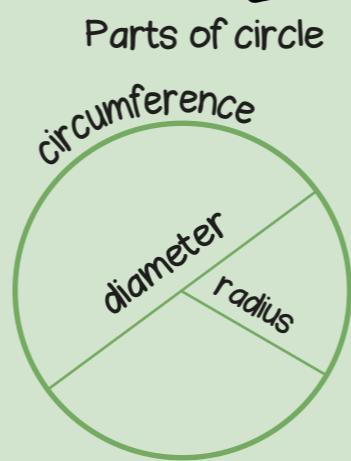
The sum of the angles at a point is 360°

Vertically opposite angles are equal

vertically opposite radius diameter circumference

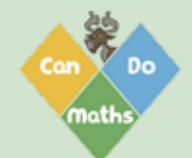
The sum of the angles in a triangle is 180°

The sum of the angles in a quadrilateral is 360°



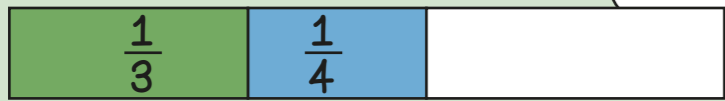
| | curved surface | no curved surface |
|-------------|----------------|-------------------|
| prism | | |
| not a prism | | |

properties symmetry parallel prism pyramid



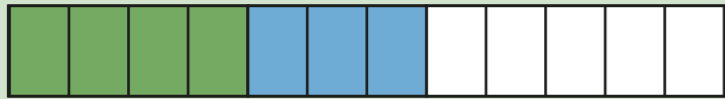
$$\frac{1}{3} + \frac{1}{4}$$

I can't describe the sum!



$$\frac{1}{3} = \frac{4}{12} \quad \frac{1}{4} = \frac{3}{12}$$

Find a common denominator.



$$\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$$

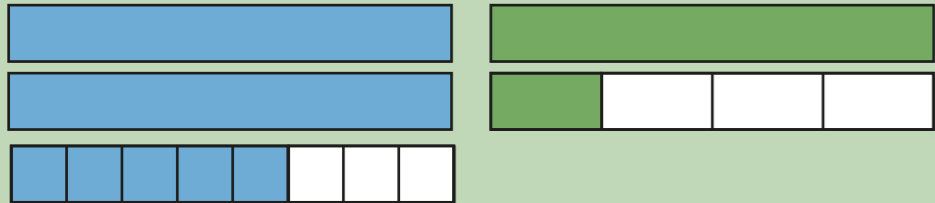
I can add fractions with the same denominator.

so

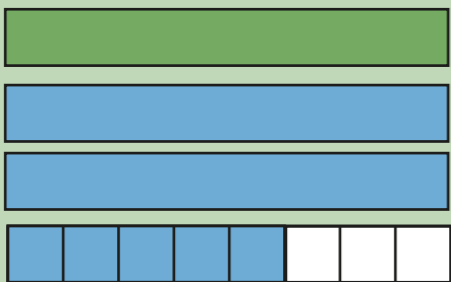
$$\frac{1}{3} + \frac{1}{4} = \frac{7}{12}$$

Adding mixed numbers.

$$2\frac{5}{8} + 1\frac{1}{4}$$

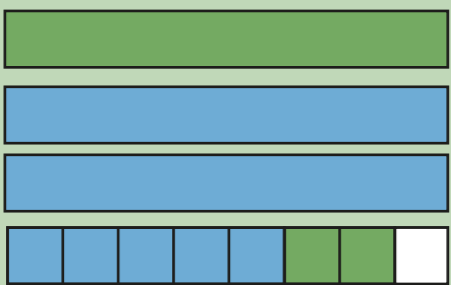
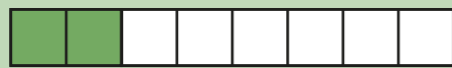


Add the whole numbers.



Add the fractions by finding a common denominator.

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



$$= 3\frac{5}{8} + \frac{2}{8} = 3\frac{7}{8}$$

$$\frac{3}{4} - \frac{2}{3}$$

I can't describe the part that is left!



$$\frac{3}{4} = \frac{9}{12} \quad \frac{2}{3} = \frac{8}{12}$$

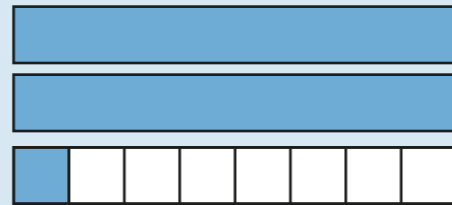
Find a common denominator.



$$\frac{9}{12} - \frac{8}{12} = \frac{1}{12}$$

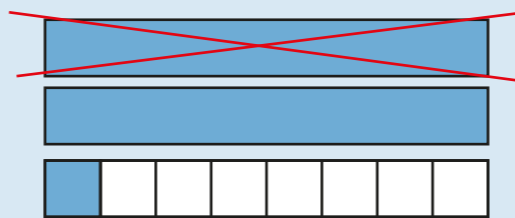
I can subtract fractions with the same denominator.

Subtracting mixed numbers.



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

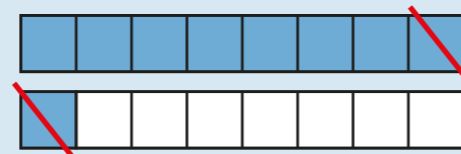
Subtract the whole numbers.



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

Subtract the fraction by finding a common denominator.

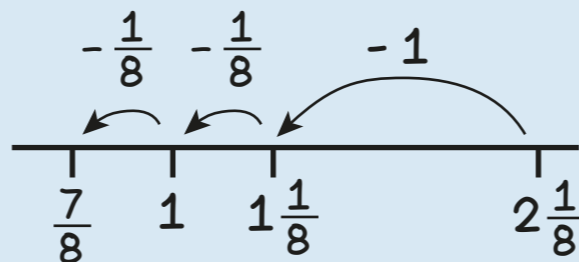
$$\frac{1}{4} = \frac{2}{8}$$



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

$$= \frac{7}{8}$$

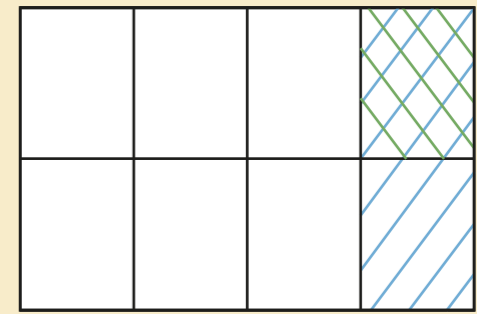
Or on a number line.



$$\frac{1}{2} \text{ of } \frac{1}{4} = \frac{1}{8}$$

$$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$$

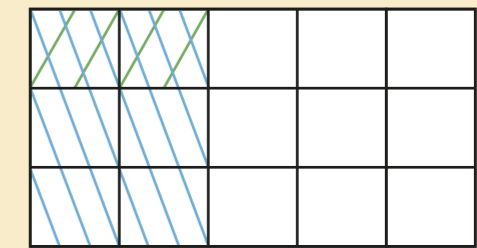
$$\frac{1}{4} \div 2 = \frac{1}{8}$$



$$\frac{1}{3} \text{ of } \frac{2}{5} = \frac{2}{15}$$

$$\frac{1}{3} \times \frac{2}{5} = \frac{2}{15}$$

$$\frac{2}{5} \div 3 = \frac{2}{15}$$

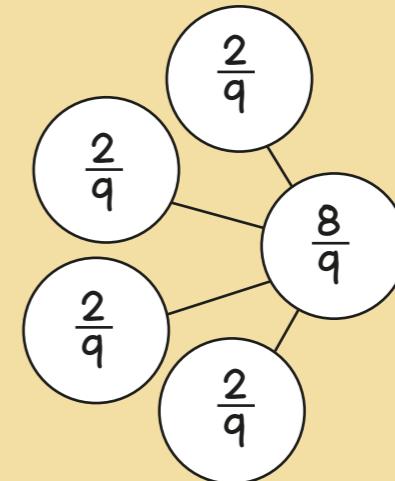
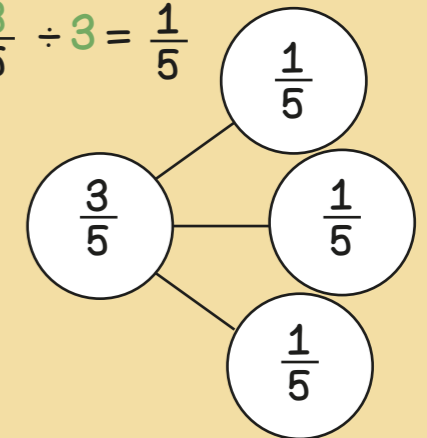


Year 6 Term 3



$$\frac{3}{5} \div 3 = \frac{1}{5}$$

denominator
numerator
proper
improper
equivalent



$$\frac{8}{9} \div 4 = \frac{2}{9}$$



| M | HTh | TTh | Th | 100s | 10s | 1s | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
|---|-----|-----|----|------|-----|----|----------------|-----------------|------------------|
| | | | | | 1 | 3 | 6 | | |
| | | | | 1 | 3 | 6 | | | |
| | | 1 | 3 | 6 | 0 | 0 | | | |
| | | | | | | 1 | 3 | 6 | |
| | | | | | | 0 | 1 | 3 | 6 |

Ten times greater

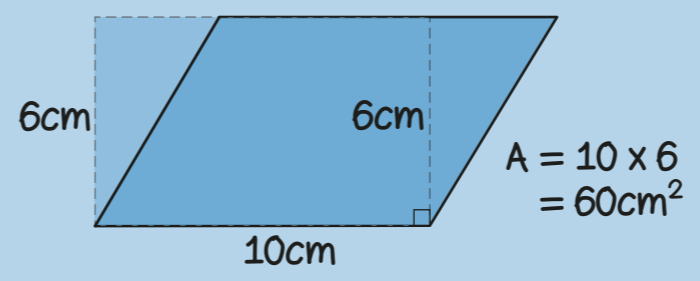
Ten times smaller

Converting units by multiplying and dividing by 10, 100 and 1000

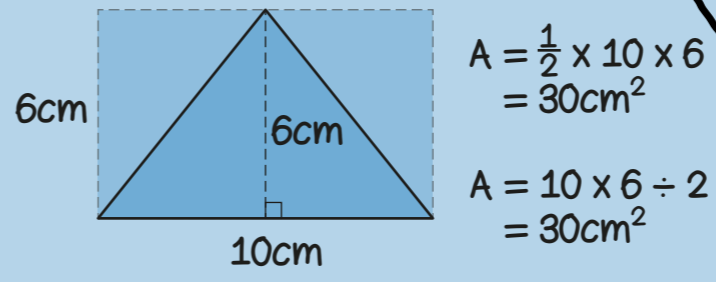
13.6×10
move digits 1 place left
 13.6×1000
move digits 3 places left

$13.6 \div 10$
move digits 1 place right
 $13.6 \div 100$
move digits 2 places right

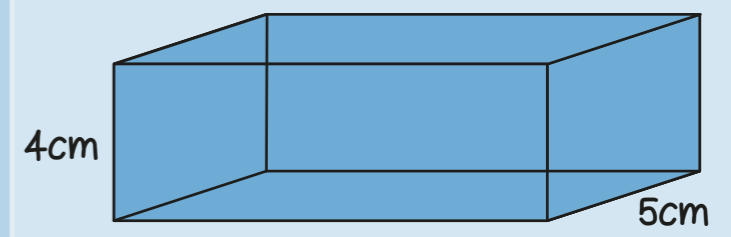
Area of a parallelogram = base x perpendicular height



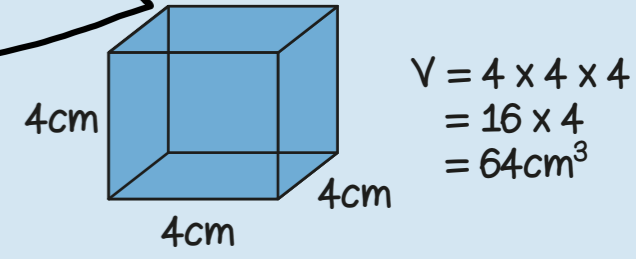
Area of a triangle = $\frac{1}{2}$ x base x perpendicular height



Volume of a cuboid = length x width x height



convert perpendicular squared volume cubed



1m = 100 cm
 $13.6 \times 100 = 1360$
so 13.6m = 1360cm

1km = 1000 m
 $13.6 \times 1000 = 13600$
so 13.6km = 13,600m

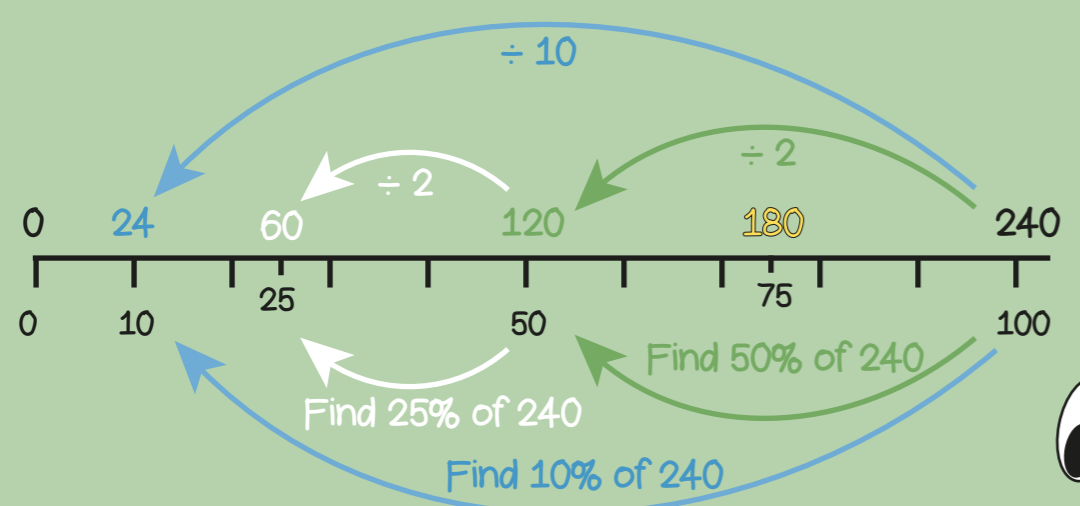
1l = 1000 ml
 $13600 \div 1000 = 13.6$
so 13,600ml = 13.6litres

1cm = 10 mm
 $13.6 \times 10 = 136$
so 13.6cm = 136mm

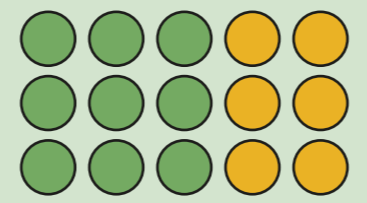
When converting from a larger unit to a smaller unit, multiply because there will be more of them.

1kg = 1000 g
 $1360 \div 1000 = 1.36$
so 1360g = 1.36kg

Year 6 Term 4



3 green for every 2 yellow



| green | yellow | total |
|-------|--------|-------|
| 3 | 2 | 5 |
| 6 | 4 | 10 |
| 9 | 6 | 15 |

Colin and Coco share £60
Coco gets 3 x more than Colin.



so 1 part = $60 \div 4 = 15$
So Colin gets £15
and Coco gets $£15 \times 3 = £45$

$a + a = 2a$
 $a \times a = a^2$

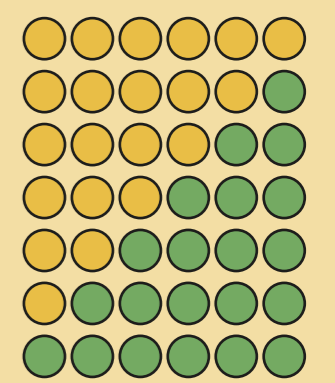
If $a = 3$
 $2a = 2 \times 3 = 6$
 $a^2 = 3 \times 3 = 9$

Buying a mug costs £8 for the mug plus £4 per colour. How much would it cost to get a mug with 3 colours?
 $£8 + 4 \times 3 = £20$

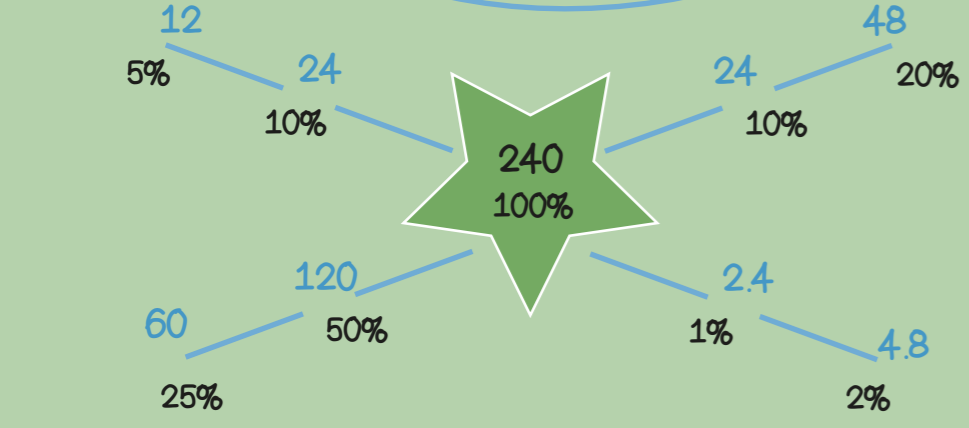
$a + b = 6$

If $a = 0$ then $b = 6$

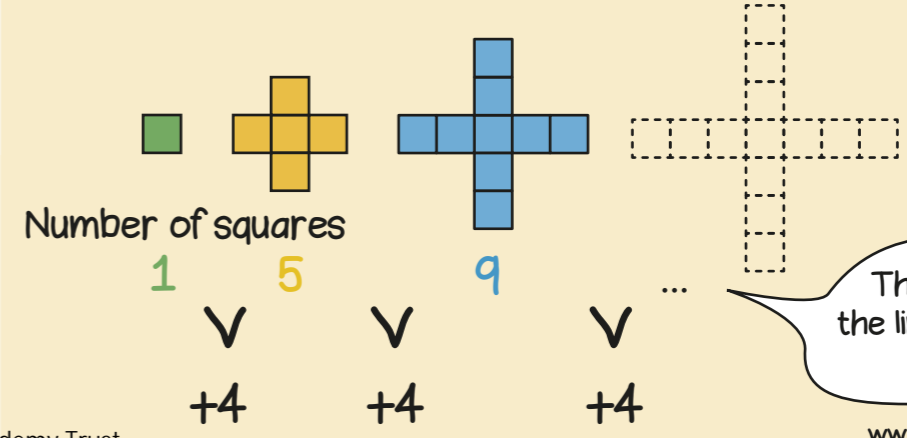
- $a = 1$ $b = 5$
- $a = 2$ $b = 4$
- $a = 3$ $b = 3$
- $a = 4$ $b = 2$
- $a = 5$ $b = 1$
- $a = 6$ $b = 0$



variable unknown term linear sequence formula



Scale factor 3



The next term in the linear sequence is $9 + 4 = 13$

Can Do maths

scale factor similar
equivalent percentage