

Name: _____

5-a-day

Platinum



1st January

$$70 + 24 \div 2$$

$$24 \div 2 = 12$$

$$70 + 12 = 82$$

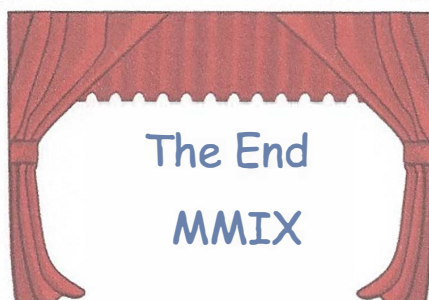
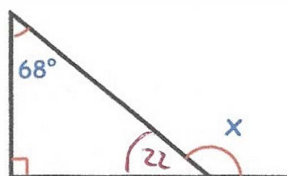
82

$$\frac{5}{6} \times \frac{3}{5} = \frac{15}{30}$$

$$\frac{15}{30} = \frac{1}{2}$$

Find the size of the angle labeled x

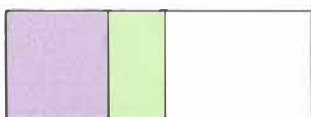
$$\begin{aligned} 90 + 68 &= 158 \\ 180 - 158 &= 22 \\ 180 - 22 &= 158 \\ x &= 158 \end{aligned}$$



At the end of a film, the year is given in Roman numerals.

Write the year MMIX in figures

2009

In this rectangle, $\frac{1}{3}$ is shaded purple $\frac{1}{5}$ is shaded green.

What fraction of the rectangle is not shaded?

$$\frac{1}{3} + \frac{1}{5} = \frac{5}{15} + \frac{3}{15} = \frac{8}{15}$$

 $\frac{7}{15}$ not shaded

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2nd January

$$\begin{array}{r} 036 \\ 16 \overline{) 5796} \end{array}$$

36

$$\begin{array}{r} 2878 \\ \times \quad 34 \\ \hline 11512 \\ 86340 \\ \hline 97852 \end{array}$$

97852

$$w = 14$$

Work out $3w + 8$

$$\begin{aligned} 3 \times 14 &= 42 \\ 42 + 8 &= 50 \end{aligned}$$

Lindsey is planting daffodil bulbs

For every 4 bulbs Lindsey planted, only 3 bulbs grew into daffodils

Altogether 12 daffodils grew

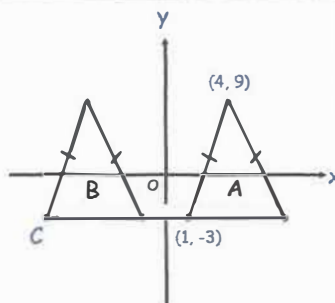
How many bulbs did Lindsey plant?

$$\begin{aligned} 12 \div 3 &= 4 \\ 4 \times 4 &= 16 \end{aligned}$$

16

Triangle B is a reflection of triangle A in the y-axis.
Both triangles are isosceles triangles.

What are coordinates of point C?

 $(-7, -3)$ 

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3rd January

35% of 340

$$\begin{array}{r}
 10\% = 34 \\
 34 \\
 + 34 \\
 \hline
 30\% = 102 \\
 5\% = 17 \\
 \hline
 102 \\
 + 17 \\
 \hline
 119
 \end{array}$$

$$\frac{1}{2} + \frac{1}{10} + \frac{1}{3}$$

$$\begin{array}{r}
 \frac{15}{30} + \frac{3}{30} + \frac{10}{30} \\
 \hline
 = \frac{28}{30} \\
 \frac{28}{30} = \frac{14}{15}
 \end{array}$$

Draw the radius on this circle



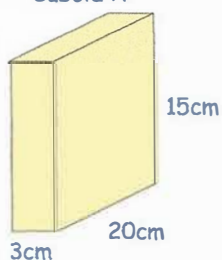
$$22,176 \div 84 = 264$$

Explain how this fact can be used to answer 85×264

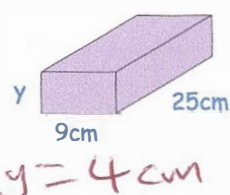
$84 \times 264 = 22176$
 So add on one more 264

$$\begin{array}{r}
 22176 \\
 + 264 \\
 \hline
 22440
 \end{array}$$

Cuboid A



Cuboid B



Cuboid A and cuboid B have the same volume.

Find the height of cuboid B, y

$$\begin{array}{l}
 15 \times 20 \times 3 = 900 \text{ cm} \\
 25 \times 9 = 225 \\
 900 \div 225 = 4
 \end{array}$$

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4th January

$$\begin{array}{r} 451 \\ \times 26 \\ \hline 2706 \\ 93020 \\ \hline 11726 \end{array}$$

11726

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

$$\frac{8}{9} \times \frac{1}{2}$$

$$\frac{8}{9} \times \frac{1}{2} = \frac{8}{18} = \frac{4}{9}$$

 $\frac{4}{9}$

$$5a + 11 = 46$$

Work out the value of **a**

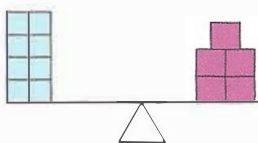
$$5a + 11 = 46$$

$$-11 \quad -11$$

$$5a = 35$$

$$\div 5 \quad \div 5$$

$$a = 7$$



8 small blocks have the same mass as 5 large blocks.

The mass of one small block is 3.5kg

Find the mass of one large block

$$\begin{array}{r} 3.5 \\ \times 8 \\ \hline 28.0 \\ 4 \end{array}$$

$$\begin{array}{r} 05.6 \\ 5 \overline{) 28.300} \end{array}$$

5.6kg

The product of Jack's age and Florence's age is 266.

Jack is 14.

How old is Florence?

19

$$\begin{array}{r} 266 \div 14 \\ 019 \\ \hline 14 \overline{) 266} \end{array}$$

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5th January

$$1\frac{2}{3} - \frac{5}{6}$$

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

$$\frac{10}{6} - \frac{5}{6} = \frac{5}{6}$$

$$\frac{5}{6}$$

7% of 600

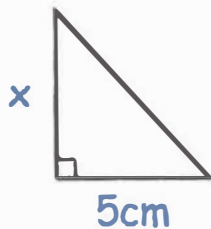
$$\begin{array}{r} 1\% = 6 \\ \times 7 \quad \times 7 \\ 7\% = 42 \end{array}$$

$$42$$

The area of the triangle is 20cm^2

Find the height of the triangle, x

$$\frac{5 \times x}{2} = 20$$



$$x = 8\text{cm}$$

A 2p coin has a mass of 7 grams.

Find the total mass of £80 worth of 2p coins

Give your answer in kilograms

$$28\text{kg}$$

$$8000\text{p} = \text{£}80$$

$$8000 \div 2 = 4000$$

$$4000 \times 7 = 28000\text{g}$$

$$28000\text{g} = 28\text{kg}$$

The numbers in this sequence increase by the same amount each time.

Write the missing numbers

$$\frac{5}{8}$$

$$1$$

$$1\frac{3}{8}$$

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

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

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6th January

$$0.9 \times 800$$

720

$$65\% \times 3,000$$

$$\begin{aligned} 10\% &= 300 \\ 60\% &= 1800 \\ 5\% &= 150 \end{aligned}$$

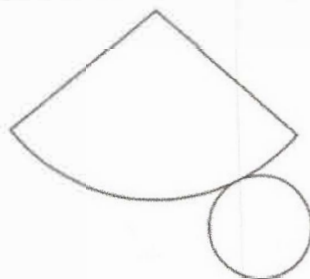
$$\begin{array}{r} 1800 \\ + 150 \\ \hline 1950 \end{array}$$

1950

Here is a net for a 3D shape

Which shape?

Cone



Burt is making cupcakes
He has made 300 cupcakes.
Burt places the cupcakes in boxes of 16.

How many boxes can he fill?

18



$$\begin{array}{r} 018.75 \\ 16 \overline{) 300.00} \\ \underline{16} \\ 140 \\ \underline{128} \\ 120 \\ \underline{112} \\ 80 \\ \underline{80} \\ 00 \end{array}$$

Raspberries cost £13.30 per kg
Mangos cost £6.20 per kg
4 pineapples cost £5

Work out the cost of 10kg of raspberries,
13kg of mangos and 6 pineapples.

£221.10

$$\begin{array}{r} 13.30 \times 10 = £133 \text{ Raspberries} \\ 620 \times 13 = £80.60 \text{ Mango} \\ 4 \times 5 = £20.00 \text{ Pineapple} \\ \hline £221.10 \end{array}$$

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7th January

$$2\frac{1}{2} \times 49$$

$$\begin{array}{r} 5 \times 49 = 245 \\ 2 \quad 1 \quad 2 \\ \hline 122.5 \\ 2 \overline{) 245.0} \end{array}$$

$$122.5$$

$$20 - 5 \times 3 - 4$$

$$15$$

$$20 - 15 - 4 = 1$$

$$1$$

There are 24 students in a class.
The pie chart shows information about
their eye colour.

How many students have brown eyes?

$$24 \div 4 = 6 \text{ green}$$

$$24 \div 3 = 8 \text{ blue}$$

$$6 + 8 = 14$$

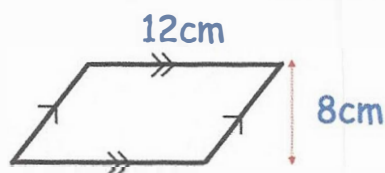
$$24 - 14 = 10$$

$$10 \text{ brown}$$



Find the area of the parallelogram

$$12 \times 8 = 96 \text{ cm}^2$$



Tomas had some money

He spent £1.55 on a coffee.

He spent £2.25 on a muffin.

He has **four-fifths** of his money left.

How much money did Tomas have to **start**
with?

$$\begin{array}{r} 1.55 \\ + 2.25 \\ \hline 3.80 \end{array}$$

$$£19$$

$$\begin{array}{r} 3.80 \\ \times 5 \\ \hline 19.00 \\ 4 \end{array}$$

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8th January

20% of 6,500

$$\begin{array}{l} 10\% = 650 \\ 20\% = 1300 \end{array}$$

1300

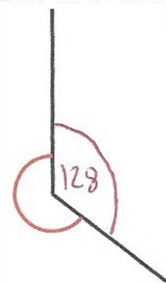
 $1026 \div 38$

$$\begin{array}{r} 0027 \\ 38 \overline{) 1026} \\ \underline{76} \\ 266 \\ \underline{232} \\ 340 \\ \underline{342} \\ -20 \end{array}$$

27

Measure this angle

$$360 - 128 = \underline{232}$$

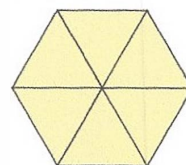
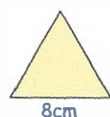


Shown is an equilateral triangle with side length of 8cm.

Six of the triangles are put together to make a larger shape.

Find the perimeter of the larger shape.

$$8 \times 6 = 48 \text{ cm}$$



Shown are four number cards.

The mean of the cards is 9.

Work out the missing number.

$$9 \times 4 = 36$$



$$7 + 5 + 8 = 20$$

$$36 - 20 = 16$$

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9th January

$$1.97 \times 8$$

$$\begin{array}{r} 1.97 \\ \times 8 \\ \hline 15.76 \end{array}$$

15.76

$$\begin{array}{r} 0.233 \\ 1.4 \overline{)3.3262} \end{array}$$

233

Round 16.2491 to one decimal place

16.2

Round 16.2491 to two decimal places

16.25

Here is a pattern of number pairs

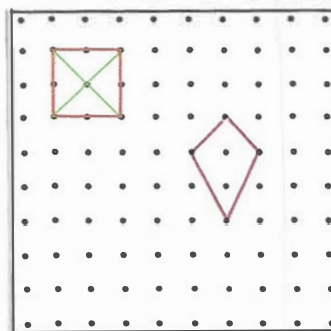
Complete the **rule** for the number pattern

$$b = \boxed{6} \times a + \boxed{4}$$

a	b
1	10
2	16
3	22
4	28

The diagonals of a square cross at right angles.

On the grid, draw a different type of quadrilateral where the diagonals cross at right angles



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10th January

$$\frac{1}{6} \times \frac{1}{4}$$

$$\frac{1}{24}$$

$$123,767 - 54,886$$

$$\begin{array}{r} 1216 \\ 123767 \\ - 54886 \\ \hline 68881 \end{array}$$

$$68,881$$

Daisy is buying rulers
She has £20
Each ruler costs 74p
Daisy buys as many rulers as she can.

How many rulers does Daisy buy?

27 rulers

$$£20 = 2000p$$

$$\begin{array}{r} 0027.2 \\ 74 \overline{) 2000} \\ \underline{74} \\ 2600 \\ \underline{2580} \\ 20 \end{array}$$

A bus leaves Antrim Bus Station every 12 minutes.
A train leaves Antrim Bus Station every 18 minutes.

At 8am, a bus and a train leave the stations at the same time

What is the next time that a bus and a train leave at the same time?

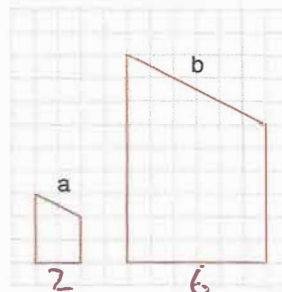
$$\begin{array}{cc} 12 & 18 \\ 24 & 36 \\ \textcircled{36} & \textcircled{36} \end{array}$$

8:36 am

Here are two similar trapeziums

Write the ratio of side a to side b

$$a : b = \frac{2}{6} = \frac{1}{3}$$



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11th January

95% of 750

$$\begin{array}{r}
 10\% = 75 \\
 5\% = 37.5 \\
 \hline
 49 \\
 750.0 \\
 - 37.5 \\
 \hline
 712.5
 \end{array}$$

712.5

$$\begin{array}{r}
 679 \\
 \times 46 \\
 \hline
 4074 \\
 27160 \\
 \hline
 31234
 \end{array}$$

31234

Mr Kelly owns a shop

He buys 31 televisions at £195.99 each and 19 DVD players at £50.99 each

Estimate how much Mr Kelly paid

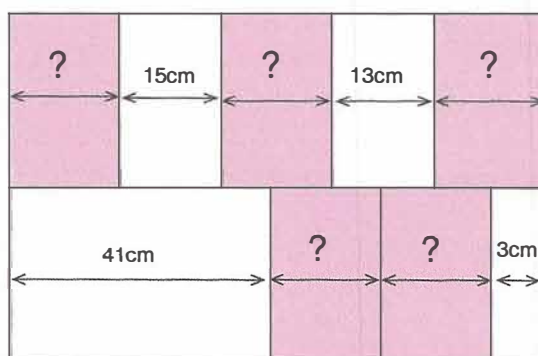
£7000

$$\begin{aligned}
 30 \times 200 &= 6000 \\
 20 \times 50 &= 1000 \\
 6000 + 1000 &= 7000
 \end{aligned}$$

In this diagram, the pink rectangles are all of equal width.

Calculate the width of one of the pink rectangles

$$\begin{aligned}
 3w + 28 &= 2w + 44 \\
 -2w &\quad -2w \\
 \hline
 w + 28 &= 44 \\
 -28 &\quad -28 \\
 \hline
 w &= 16
 \end{aligned}$$



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12th January

$$18 \times 1\frac{2}{3}$$

$$\frac{18}{1} \times \frac{5}{3} = \frac{90}{3} = 30$$

30

$$32 - 2 \times 9$$

18

$$32 - 18 = 14$$

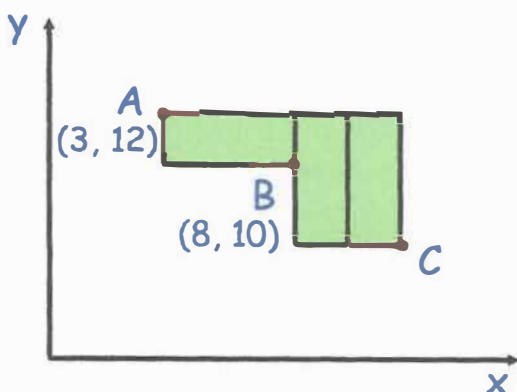
14

Arrange in order from smallest to largest

$$\frac{3}{4}, \frac{2}{3}, \frac{5}{6}, \frac{1}{3}$$

$$\frac{1}{3}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$$

Below are three identical rectangles.



How long is each rectangle?

5 units

Find the coordinates of the point C

(12, 7)

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13th January

$$\frac{2}{7} \div 2 = \frac{2}{7} \times \frac{1}{2}$$

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

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

$$2\frac{3}{4} - 1\frac{7}{8}$$

$$\frac{11}{4} - \frac{15}{8} = \frac{22}{8} - \frac{15}{8} = \frac{7}{8}$$

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

Write $\frac{3}{8}$ as a decimal

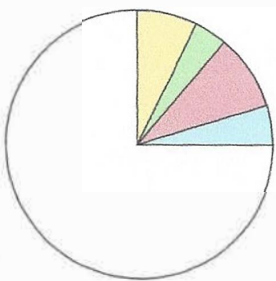
0.375

Write $\frac{7}{40}$ as a decimal

0.175

Dorothy has drawn a pie chart to show her friends' favourite type of movie

Genre	Frequency
Comedy	26
Horror	14
Action	33
Drama	17



- Comedy
- Horror
- Action
- Drama

What has Dorothy has done wrong?

She has used the frequency as the size of the angle.

What size should the angle be for Comedy?

$$26 + 14 + 33 + 17 = 90$$

$$360 - 90 = 270$$

$$270 \div 26 = 10.38^\circ$$

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14th January

55% of 8,200

$$\begin{array}{r}
 50\% = 4100 \\
 5\% = 410 \\
 \hline
 4100 \\
 + 410 \\
 \hline
 4510
 \end{array}$$

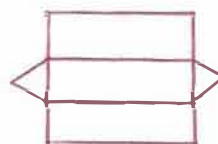
4510

$$\frac{5}{6} \div \frac{2}{1} \quad \frac{5}{6} \times \frac{1}{2}$$

$$\frac{5}{6} \times \frac{1}{2} = \frac{5}{12}$$

 $\frac{5}{12}$

Sketch the net of a triangular prism



Solve the equation

$$9w + 17 = 7w + 30$$

$$w = 6.5$$

$$\begin{array}{r}
 9w + 17 = 7w + 30 \\
 -7w \quad \quad -7w \\
 \hline
 2w + 17 = 30 \\
 -17 \quad -17 \\
 \hline
 2w = 13 \\
 \div 2 \quad \div 2 \\
 \hline
 w = 6.5
 \end{array}$$

Rosie has four **different** triangles

Complete the table to show the size of the angles in each triangle

Type of Triangle	Angle 1	Angle 2	Angle 3
Scalene	20°	60	100
Right-angled	70°	90	20
Isosceles	50°	50	80
Isosceles	50°	65	65

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15th January

$$75 \times 175$$

$$\begin{array}{r} 175 \\ \times 75 \\ \hline 875 \\ 12250 \\ \hline 13125 \end{array}$$

13125

$$14 \div 5$$

$$\begin{array}{r} 02.8 \\ 5 \overline{)14.0} \\ \underline{10} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

2.8

$$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{5} \quad \frac{1}{6} \quad \frac{1}{7}$$

Use three of these fraction cards to complete the sum

$$\frac{1}{2} + \frac{1}{3} + \frac{1}{6} = 1$$

The diagram shows 15 identical circles and a pink triangle.

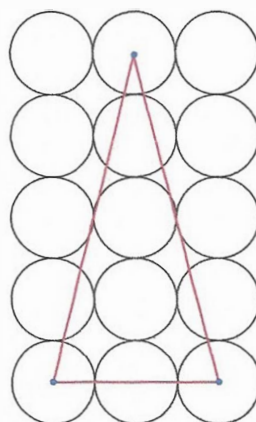
The vertices of the triangles are at the centre of the circles.

Work out the area of the pink triangle

Height 24cm

Base 12cm

$$\frac{24 \times 12}{2} = \frac{288}{2} = 144$$



< 18cm >

30cm

144cm²

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16th January

$$17^2 = 300 - \boxed{11}$$

$$\begin{array}{r} 17 \\ \times 17 \\ \hline 119 \\ 170 \\ \hline 289 \end{array}$$

$$\boxed{11}$$

$$825 - 912$$

$$\begin{array}{r} 810 \\ 9 \times 2 \\ - 825 \\ \hline 87 \end{array}$$

$$\boxed{-87}$$

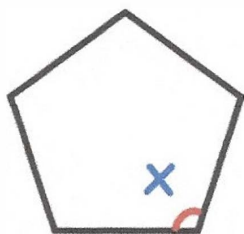
Using the information that

$$87 \times 456 = 39672$$

write down the value of 870×4.56

$$3967.2$$

Shown is a regular pentagon



Find the size of angle x

$$x = 108$$

There are 80 teachers in a school.

The headteacher says that exactly 43% of the teachers drive to work.

Explain why the headteacher is wrong.

$$17 = 0.8$$

$$437 = 34.4$$

You cannot have 0.4
of a teacher

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17th January

$$73,283 + 18,909 + 4,500$$

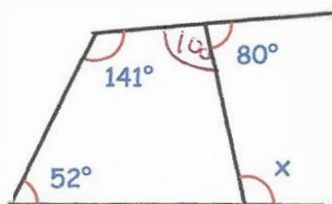
$$\begin{array}{r} 73283 \\ + 18909 \\ + 4500 \\ \hline 96692 \end{array}$$

96692

$$71 \times 181$$

$$\begin{array}{r} 181 \\ \times 71 \\ \hline 181 \\ 12670 \\ \hline 12851 \end{array}$$

12851



$$x = 113$$

Find the size of angle x

$$\begin{array}{r} 100 \\ + 141 \\ + 52 \\ \hline 293 \end{array}$$

$$\begin{array}{r} 25 \\ 360 \\ - 293 \\ \hline 67 \end{array}$$

$$\begin{array}{r} 180 \\ - 67 \\ \hline 113 \end{array}$$

Rebecca is $\frac{1}{6}$ of Samuel's age.

Samuel is 7 years younger than Louise.

If Rebecca is 9 years old, how old is Louise?

61

$$9 \times 6 = 54$$

Sam is 54

$$54 + 7 = 61$$



Ben and Holly share 30 marbles in the ratio 2:3.

How many marbles does Holly receive?

18

$$30 \div 5 = 6$$

$$6 \times 3 = 18$$

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18th January

$$\frac{\square}{\square} = 0.\dot{3}$$

$$1 + 7^2$$

$$1 + 49 = 50$$

$$\frac{1}{3}$$

$$50$$

The diameter of a circle is 5cm.

What length is the radius?

$$2.5 \text{ cm}$$

One gram of platinum costs £22.17

How much does **two fifths** of a kilogram cost?

$$\frac{2}{5} \text{ of Kg} = 400\text{g}$$

$$\begin{aligned} 22.17 \times 400 \\ = 8868 \\ \pounds 8868 \end{aligned}$$

Write four numbers with a **mean** of 12 and a **range** of 12.

Must add to 48.

$$\text{Biggest} - \text{Smallest} = 12$$

$$6, 12, 12, 18$$

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19th January

$$1,332 \div 12$$

$$\begin{array}{r} 111 \\ 12 \overline{) 1332} \\ \underline{12} \\ 13 \\ \underline{12} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

$$111$$

$$\frac{4}{7} + \frac{2}{3}$$

$$\frac{12}{21} + \frac{14}{21} = \frac{26}{21}$$

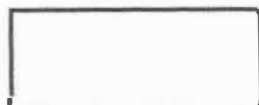
$$\frac{26}{21} = 1\frac{5}{21}$$

Work out the area of this rectangle

$$\begin{array}{r} 68 \\ \times 27 \\ \hline 476 \\ 1360 \\ \hline 1836 \end{array}$$

$$18 \times 36 \text{ cm}^2$$

6.8cm



2.7cm

On a map, 1cm represents 40km

The distance between two cities is 340km

On the map, what is the distance between the two cities?

$$340 \div 40 = 8.5$$

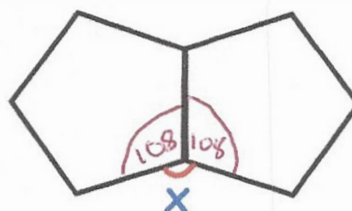
$$8.5 \text{ cm}$$

Two identical regular pentagons are shown.

Find angle x

$$\begin{array}{r} 108 \\ + 108 \\ \hline 216 \end{array}$$

$$\begin{array}{r} 5. \\ 360 \\ - 216 \\ \hline 144 \end{array}$$



$$x = 144$$

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20th January

60% of 1,800

$$10\% = 180$$

$$\begin{array}{r} 180 \\ \times 6 \\ \hline 1080 \end{array}$$

1080

 16×9.1

$$\begin{array}{r} 16 \\ \times 9.1 \\ \hline 16 \\ 1440 \\ \hline 1456 \end{array}$$

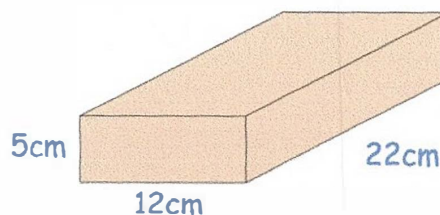
145.6

Draw two quadrilaterals with diagonals that **do not** cross at right angles



Work out the volume of this cuboid

$$5 \times 12 \times 22 = 1320 \text{ cm}^3$$



Which is larger 20% of 7 or 7% of 20?

They are equal

$$\begin{aligned} 10\% \text{ of } 7 &= 0.7 \\ 20\% &= 1.4 \\ 1\% \text{ of } 20 &= 0.2 \\ 7\% &= 1.4 \end{aligned}$$

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21st January

$$35\% \times 660$$

$$\begin{array}{r} 10\% = 66 \\ 5\% = 33 \\ + 33 \\ \hline 231 \end{array}$$

231

$$\begin{array}{r} 026 \\ 29 \overline{) 754} \\ \underline{58} \\ 174 \\ \underline{174} \\ 0 \end{array}$$

26

Jacob says that 0.4 is greater than $\frac{3}{8}$
Explain why he is correct

$$\begin{array}{r} 0.375 \\ 8 \overline{) 3.000} \\ \underline{24} \\ 60 \\ \underline{56} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

$$\frac{3}{8} = 0.375$$

Here are some planned school trips

	Karting	Museum	Theme Park
Number of students	140	221	342
Number of teachers	8	12	19

For every 18 students there must be at least 1 teacher.

Do all the trips have enough teachers?

No

$$\begin{array}{l} 8 \times 18 = 144 \text{ Yes} \\ 12 \times 18 = 216 \text{ NO} \\ 19 \times 18 = 342 \text{ Yes} \end{array}$$



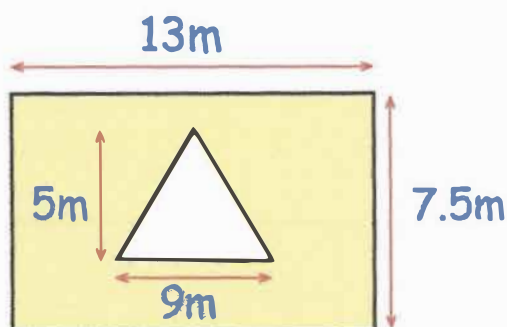
22nd January

$$3\frac{4}{5} = \frac{\boxed{19}}{5}$$

19

$$\begin{array}{r} 2068 \\ \times \quad 41 \\ \hline 2068 \\ 82720 \\ \hline 84788 \end{array}$$

84788



Work out the shaded area

$$\begin{array}{l} 13 \times 7.5 = 97.5 \\ 9 \times 5 \div 2 = 22.5 \\ \hline 75 \text{ m}^2 \end{array}$$

Result	Percentage
Win	50%
Draw	36%
Lose	14%

Alfie makes a pie chart to show the results

What angle should he use for "draws?"

$$\begin{array}{l} 360 \div 100 = 3.6 \\ 3.6 \times 36 = 129.6 \end{array}$$

Leah bought a new car costing £18,000
She paid a deposit of £2,000.

Leah paid the rest of the money over 50
equal monthly payments.

How much was each monthly payment?

$$\begin{array}{l} 18000 - 2000 = 16000 \\ 16000 \div 50 = 320 \\ \pounds 320 \end{array}$$

Name: _____

5-a-day

Platinum



23rd January

$$2\frac{2}{5} + \frac{7}{10}$$

$$\frac{12}{5} + \frac{7}{10} = \frac{24}{10} + \frac{7}{10} = \frac{31}{10}$$

$$\frac{31}{10} = 3\frac{1}{10}$$

$$\begin{array}{r} 0029 \\ 45 \overline{) 1330} \\ \underline{45} \\ 130 \\ \underline{90} \\ 40 \end{array}$$

29



Write down the ratio of green circles to red squares

12:6

→ 2:1

Find the highest common factor (HCF) of 24 and 42

6

Four bananas have a **mean** mass of 120g

The smallest banana is removed.

The **mean** mass of the remaining three bananas is 130g.

What is the mass of the smallest banana?

$$120 \times 4 = 480$$

$$130 \times 3 = 390$$

90g

$$\begin{array}{r} 3 \\ 480 \\ - 390 \\ \hline 90 \end{array}$$

Name: _____

5-a-day

Platinum



24th January

$$\frac{4}{5} \div \frac{4}{1} = \frac{4}{5} \times \frac{1}{4} = \frac{4}{20}$$

$$\frac{4}{20} = \frac{1}{5}$$

$$\frac{2}{5} \times \frac{280}{1} = \frac{560}{5}$$

$$\begin{array}{r} 112 \\ 5 \overline{) 560} \end{array}$$

$$112$$

Can you spot any mistakes?

You must do 4×3
first.

Work out $9 + 4 \times 3 + 2$

$$\begin{aligned} &= 13 \times 3 + 2 \\ &= 39 + 2 \\ &= 41 \end{aligned}$$

Work out the value of y

$$2y - 14 = 92$$

$$y = 53$$

$$\begin{array}{r} 2y - 14 = 92 \\ +14 \quad +14 \\ \hline \end{array}$$

$$2y = 106$$

$$\begin{array}{r} \div 2 \quad \div 2 \\ \hline y = 53 \end{array}$$

A red light flashes every 28 seconds and a green light flashes every 24 seconds.

They both flash at the same time.

After how many seconds will they next both flash at the same time?

28	24
56	48
84	72
112	96
140	120
<u>168</u>	144
	<u>168</u>

$$\underline{168}$$



25th January

$$100 - 50 \times 2 + 1$$
$$100$$

$$100 - 100 + 1 = 1$$

1

$$1\frac{1}{5} - \frac{1}{3}$$

$$\frac{6}{5} - \frac{1}{3}$$

$$= \frac{18 - 5}{15} = \frac{13}{15}$$

$\frac{13}{15}$

Round 15.31681 to 2 decimal places

15.32

Jake is making scones

Here is a list of ingredients to make 8 scones.

8 Scones

200g flour

30g caster sugar

50g butter

140ml milk

1 egg

How much of flour and butter would he need to make 6 scones?

$$\div 4 \times 3$$

$$200 \div 4 \times 3 = 150\text{g flour}$$

$$50 \div 4 \times 3 = 37.5\text{g butter}$$

Name: _____

5-a-day

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26th January

$$2.4 \times 101$$

$$\begin{array}{r} 101 \\ \times 24 \\ \hline 404 \\ 2020 \\ \hline 2424 \end{array}$$

242.4

$$70\% \text{ of } 350$$

$$\begin{array}{r} 10\% = 35 \\ 35 \\ \times 7 \\ \hline 245 \end{array}$$

245

Row 1

9

12

15

Row 2

16

19

22

Row 3

23

26

29

Row 4

30

33

36

$$\begin{array}{c} \uparrow \\ 7n+8 \end{array}$$

What number comes at the end of row 20?

$$\begin{array}{l} 7 \times 20 = 140 \\ 140 + 8 = 148 \end{array}$$

Which row has a sum of 309?

$$\begin{array}{l} 100 + 103 + 106 = 309 \\ \text{Row 14} \end{array}$$

Work out the missing number

$$\frac{2}{3} \times \frac{7}{15} = \frac{14}{45}$$

$$\boxed{\frac{14}{45}} \div \frac{7}{15} = \frac{2}{3}$$

Name: _____

5-a-day

Platinum



27th January

$$6 + 21 \times 3 + 10$$

63

$$6 + 63 + 10 = 79$$

79

$$5^3$$

$$5 \times 5 \times 5$$

125

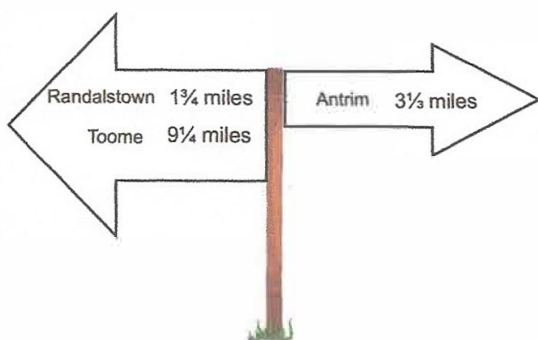
William Shakespeare was born in 1564

Write 1564 in Roman numerals

MDLXIV



Lewis is walking from Antrim to Randalstown



Work out the distance from Antrim to Randalstown

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

$$\frac{10}{3} + \frac{7}{4} = \frac{40}{12} + \frac{21}{12} = \frac{61}{12} = 5\frac{1}{12}$$

Work out the distance from Randalstown to Toome

$$9\frac{1}{4} - 1\frac{3}{4}$$

$$\frac{37}{4} - \frac{7}{4} = \frac{30}{4} = 7\frac{2}{4} = 7\frac{1}{2}$$

Name: _____

5-a-day

Platinum



28th January

$$-17 - 16$$

$$-33$$

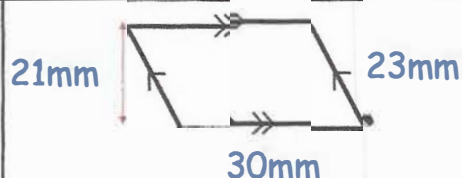
$$1276 \div 11$$

$$\begin{array}{r} 0116 \\ 11 \overline{) 1276} \\ \underline{11} \\ 17 \\ \underline{11} \\ 66 \\ \underline{66} \\ 0 \end{array}$$

$$116$$

Find the area of the parallelogram

$$30 \times 21 = 630 \text{ mm}^2$$



An adult ticket for the cinema is £13.00
A child ticket is half the price of an adult ticket. Mr and Mrs Henderson and their four children go to see a movie.
Mrs Henderson has a voucher to save 8%.

How much does she have to pay for the tickets?

$$£47.84$$

$$\begin{array}{r} 13 \\ +13 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 26 \\ +26 \\ \hline 52 \end{array}$$

$$6.50$$

$$6.50$$

$$6.50$$

$$6.50$$

$$\begin{array}{r} 26.00 \\ +26.00 \\ \hline 52.00 \end{array}$$

$$17 = 0.52 \quad 8\% = 4.16$$



$$\begin{array}{r} 4119 \\ 82.00 \\ -4.16 \\ \hline 47.84 \end{array}$$

Explain how $42 \times 31 = 1302$ can be used to work out the value to 840×31

$$42 \text{ is half of } 84$$

$$84 \times 10 = 840$$

$$42 \times 31 = 1302 \quad (\times 2)$$

$$84 \times 31 = 2604 \quad (\times 10)$$

$$840 \times 31 = 26040$$

Name: _____

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29th January

$$1,401,605 - 580,070$$

$$\begin{array}{r} 13 \quad 5 \\ 1401605 \\ - 580070 \\ \hline 821535 \end{array}$$

821535

$$308 \times 62$$

$$\begin{array}{r} 308 \\ \times 62 \\ \hline 616 \\ 18480 \\ \hline 19096 \end{array}$$

19096

The perimeter of a square is 25cm

Find the length of each side.

$$6.25 \text{ cm}$$

$$\begin{array}{r} 06.25 \\ 4 \overline{) 25.00} \\ \underline{4} \\ 25 \\ \underline{20} \\ 500 \\ \underline{400} \\ 100 \end{array}$$

Tim had some money

He spent £1.75 on a drink and £3.40 on a sandwich.

He has **four-fifths** of his money left.

How much money did Tim have to start with?

$$£ 25.75$$

$$\begin{array}{r} 1.75 \\ + 3.40 \\ \hline 5.15 \end{array}$$

$$5.15 \times 5 = 25.75$$

Hugo calculates the size of each angle for a pie chart

Destination	Frequency	
Employment	15	$\times 0.2 = 3^\circ$
Apprenticeship	11	$\times 0.2 = 2.2^\circ$
Further Education	40	$\times 0.2 = 8^\circ$
Gap Year	6	$\times 0.2 = 1.2^\circ$

$$15 + 11 + 40 + 6 = 72$$

$$72 \div 360 = 0.2^\circ \text{ per person}$$

Can you spot what Hugo has done wrong?

He should have done

$$360 \div 72 = 5$$

Name: _____

5-a-day

Platinum



30th January

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

$$\frac{11}{3} - \frac{3}{4} = \frac{44}{12} - \frac{9}{12}$$

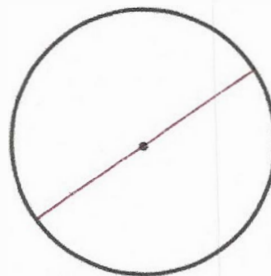
$$= \frac{35}{12}$$

$$\frac{35}{12} = 2\frac{11}{12}$$

$$\frac{9}{1} \times \frac{3}{5} = \frac{27}{5}$$

$$\frac{27}{5} = 5\frac{2}{5}$$

Draw the diameter on this circle



A football is dropped and bounces up to a height that is 80% of the height from which it was dropped.

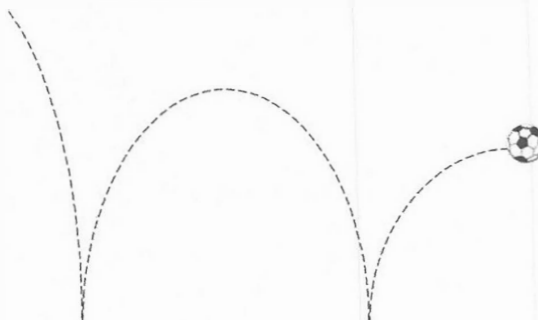
It then bounces again to a height that is 80% of the previous height and so on.

The football is dropped from a height of 10m.

What height does the ball rise to after the second bounce?

$$80\% \text{ of } 10 = 8$$

$$80\% \text{ of } 8 = 6.4 \text{ m}$$



Name: _____

5-a-day

Platinum



31st January

$$3.9 \times 4,000$$

$$\begin{array}{r} 39 \\ \times 4 \\ \hline 156 \end{array} \quad 3.9 \times 4 = 15.6$$

$$15.6 \times 1000 = 15600$$

15600

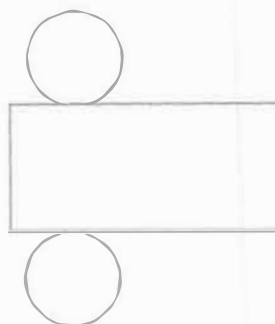
$$\begin{array}{r} 0459 \\ 12 \overline{) 55708} \end{array}$$

459

Shown is a net for a 3D shape

Which 3D shape?

Cylinder



On a map, 1cm represents 40 km.

The distance between two cities is 340km

On the map, what is the distance between the two cities?

$$340 \div 40 = 8.5$$

8.5cm

Shown below are five cards which are arranged in order, smallest first
The difference between the smallest and largest is 6.

The middle card is 25% of 28.

The mean of the cards is 8.

Work out the 4 missing numbers

5	6	7	11	11
---	---	---	----	----

or
5 7 7 10 11