Name: Answers 5-a-day Platinum

1st June

$630 \div 18$

$$18 \overline{)630} = 35$$

35

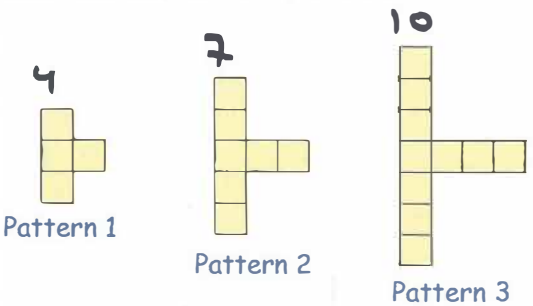
$8 + 16 \div 4$

$16 \div 4 = 4$

$8 + 4 =$

12

Here is a sequence of patterns



How many squares are in Pattern 4?

13

How many squares are in Pattern 7?

4, 7, 10, 13, 16, 19, 22

22

Find the value of c in the equation

$39 - 7c = 25$

$7c = 14$

$c = 2$

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Name: Answers 5-a-day Platinum

2nd June

$$\begin{array}{r} 170 \\ 19\overline{)32^{13}30} \end{array}$$

$\boxed{170}$

10^4

$\boxed{10{,}000}$

Miss Rodgers is buying rulers.

20 rulers cost £5.20
10 rulers cost £3.15
1 ruler costs 65p

71

Miss Rodgers has £20 to spend on rulers.

What is the greatest number of rulers she can buy?

3 × £5.20 = 15.60 (60 rulers)
1 × £3.15 = 3.15 (10 rulers)
1 × 65p = 0.65 (1 ruler)
19.4 71

Here is a pattern of number pairs

a	b
1	17
2	20
3	23
4	26

Complete the rule for the number pattern

$b = \boxed{3} \times a + \boxed{14}$

Find the highest common factor (HCF) of 16 and 24.

8

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Name: Answers 5-a-day Platinum

3rd June

$3\frac{1}{5} \times 30$

$3 \times 30 = 90$

$\frac{1}{5} \times 30 = 6$

96

$4.5 \div 90$

$45 \div 90 = 0.5$

$4.5 \div 90 = 0.05$

0.05

A cake weighs 850g.

40% of the cake is sugar.

Work out how many grams of sugar are in the cake.

$10\% = 85$

$40\% = 340g$

m is a whole number.

6*m* is greater than 40
10*m* is less than 120

Write all the numbers that *m* could be

$6 \times 7 = 42$

$10 \times 12 = 120$

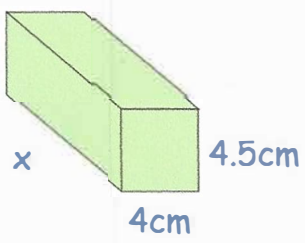
7, 8, 9, 10, 11

Find the length of this cuboid

$4 \times 4.5 = 18$

$432 \div 18 = 24\text{cm}$

Volume: 432cm³



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Name: Answers 5-a-day Platinum

4th June

$\frac{1}{3} \div 2$

$\frac{1}{6}$

30% of 19

10% = 1.9

30% = 1.9 x 3 =

5.7

Add these signs to make the calculation correct.

+ − × ÷

5 + 8 − 4 + 2 = 11

or

5 + 8 − 4 ÷ 2 = 11

40% of the apples in a bag are red.
The rest of the apples are green.

There are 12 red apples in the bag.

How many apples are in the bag?

30

12 is 40%

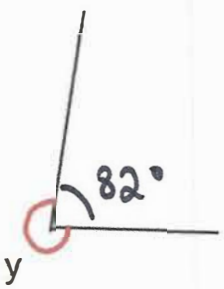
3 is 10%

30 is 100%

Measure the size of angle y.

y = 360 − 82

y = 278°



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Name: Answers 5-a-day Platinum

5th June

5% of 1,400

10% is 140

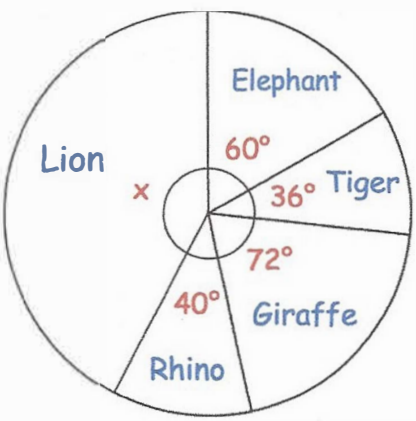
5% is 70

0.144 ÷ 9

$$9\overline{)1\,4^{5}4}\quad 0\,1\,6$$

0.016

The pie chart shows information about the animals some children liked best.



Find the size of the angle x.

360 - (60 + 36 + 72 + 40)

= 152°

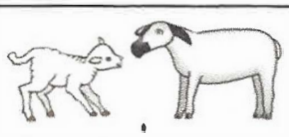
What fraction of children liked elephant best?

$\frac{60}{360} = \frac{1}{6}$

Farmer Smith has 100 more sheep than Farmer Jones.
Farmer White has twice as many sheep as Farmer Jones.

In total there are 2,500 sheep.

How many sheep does Farmer Jones have? 600



Jones : j
Smith : j + 100
White : 2j
4j + 100 = 2500
j = 600

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Name: Answers 5-a-day Platinum

6th June

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

$\frac{6}{7} \times \frac{1}{3} = \frac{6}{21} :$

$\frac{2}{7}$

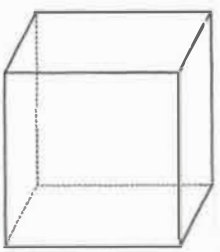
$62.5\% = \frac{\square}{\square}$

$\frac{5}{8}$

A cube has a volume of 64cm^3

Find x

$\sqrt[3]{64} = 4\text{ cm}$



Michaela thinks of a number.

She **multiples the number by 4** and then **subtracts 72** from the result.

Her answer equals the number she started with.

What was the number Michaela started with?

$4x - 72 = x$

$3x = 72$

$x = 24$

$5{,}746 \div 17 = 338$

Explain how you can use this fact to find the answer to 18×338

$17 \times 338 = 5746$

So

$18 \times 338 = 5746 + 338$

$(= 6084)$

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Name: Answers 5-a-day Platinum

7th June

$90 + 3 \times 2^2$

$3 \times 2^2 = 12$

102

$0.2 \times 2{,}000$

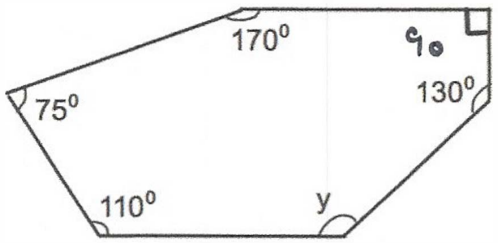
400

Find the size of angle y.

total = $4 \times 180 = 720°$

$y = 720 - 575$

$= 145°$



Circle two numbers that multiply together to equal **100 million**

200 500 1,000 2,000

20,000 100,000 200,000

Work out the highest common factor (HCF) of 300 and 120

60

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Name: Answers 5-a-day Platinum

8th June

$825{,}633 + 57{,}917$

$$\begin{array}{r} 825633 \\ +\ 57917 \\ \hline 883550 \\ {\scriptstyle 1\ \ \ 1\ \ } \end{array}$$

883,550

3041×32

$$\begin{array}{r} 3041 \\ \times\ \ 32 \\ \hline 6082 \\ 91230 \\ \hline 97312 \\ {\scriptstyle 1\ \ } \end{array}$$

97,312

Write 1,850 in Roman numerals

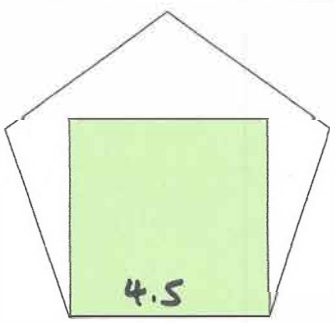
MDCCCL

Here is a square inside of a regular pentagon. The perimeter of the square is 18cm.

What is the perimeter of the pentagon?

$18 \div 4 = 4.5$

$4.5 \times 5 = 22.5$ cm



Eddy had some money.

He spent £1.45 on a drink.
He spent 99p on a packet of popcorn.

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

£12.20

How much money did Eddy start with?

$1.45 + 0.99 = 2.44$

which is $\frac{1}{5}$ of his money

So method $2.44 \times 5 =$ £12.20

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Name: Answer 5-a-day Platinum

9th June

$0.875 = \frac{\square}{\square}$

7/8

$30.8 \div 100{,}000$

0.000308

A factory makes 4,000 bottles of lemonade.
Each bottle contains 750 millilitres.

How many litres of lemonade does the factory make?

3000 litres

750ml = 0.75 litres

0.75 × 4000 =

3000

Charlie's password is made up of six **different** digits.

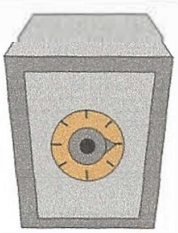
He remembers it as three 2-digit numbers.

The first 2-digits is a square number between 30 and 50. 36 or 49

The second 2-digits is a prime number between 10 and 20. 13, 17, 19

The third 2-digits is a cube number between 10-99 27, 64

List all his possible passwords



361927
491327

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Name: Answers 5-a-day Platinum

10th June

321^2

$$\begin{array}{r} 321 \\ \times\ 321 \\ \hline 321 \\ 6420 \\ 96300 \\ \hline 103041 \end{array}$$

103,041

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

$\frac{6}{30} + \frac{20}{30} + \frac{15}{30} = \frac{41}{30}$

$\frac{41}{30}$ or $1\frac{11}{30}$

Find the lowest common multiple (LCM) of 35 and 15.

15, 30, 45, 60, 75, 90, 105

35, 70, 105

105

Find the remainder when 1,520 is divided by 27.

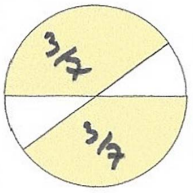
8

$$27\overline{)1520} \quad 56 \text{ r } 8$$
$$135$$
$$170$$
$$162$$

In this circle, each shaded part is $\frac{3}{7}$ of the area of the circle.

The two white parts have the same area.

What fraction of the circle is **one** of the white areas?



2 white sections
total $\frac{1}{7}$

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

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Name: Answers 5-a-day Platinum

11th June

Simplify $\frac{2050}{7350}$

$\frac{\div 50}{\div 50} = \frac{41}{147}$

$\frac{41}{147}$

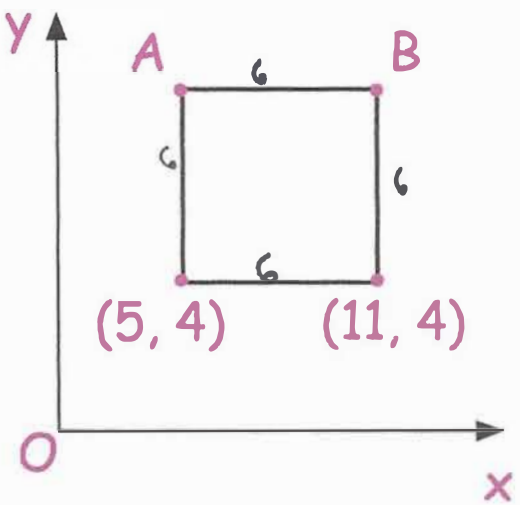
30% of 12

10% is 1.2

30% = 3.6

3.6

Here is a square



What are the coordinates of point A?

(5, 10)

What are the coordinates of point B?

(11, 10)

A shop sells drinks.

Harry buys 2 coffees and 1 tea for £7.70

Mia buys 2 coffees and 4 teas for £15.80

How much does one tea cost?

3 teas cost 15.80 − 7.70

= £8.10

1 tea = £2.70

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Name: Answer 5-a-day Platinum

12th June

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

$\frac{8}{12} - \frac{3}{12} =$

$\frac{5}{12}$

$0.513 \div 6$

$$6 \overline{)5^{1}1^{3}3^{3}0} \quad 0855$$

0.0855

How many minutes are there in June?

$30 \times 24 \times 60$

$= 43,200$

Bradley thinks of a 3D shape.

It has 5 faces. One face is a square and the rest are triangles.

What shape is it?

(square based) pyramid

A gardener plants daffodil bulbs in her garden.

For every 4 yellow bulbs, she plants 5 white bulbs.

She plants 80 white bulbs.

How many bulbs does she plant in total?

$80 \div 5 = 16$

$16 \times 4 = 64$

$80 + 64 = 144$

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Name: Answer

5-a-day

Platinum

13th June

$\frac{4}{5} \times \frac{10}{13}$

$= \frac{40}{65} =$

$\frac{8}{13}$

$1{,}909 \times 52$

$$\begin{array}{r} 1909 \\ \times \quad 52 \\ \hline 3818 \\ 95450 \\ \hline 99268 \end{array}$$

99,268

What is 20% of a fifth?

$\frac{1}{25}$ or 0.04 or 4%

A bus travels 100 miles at a speed of 40 miles per hour.

How long does the journey take?

$t = \frac{100}{40} = 2\frac{1}{2}$ hours

Tomas is facing South.

He turns 135° anticlockwise.

What direction is he now facing?

NE

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Name: Answers 5-a-day Platinum

14th June

$800 - 200 + 40 \times 2$

680

5^4

625

Convert 0.3 tonnes into grams

$0.3t = 300kg$

$= 300,000g$

Anthony and Joseph share £70 in the ratio 2:3.

How much money does Anthony receive?

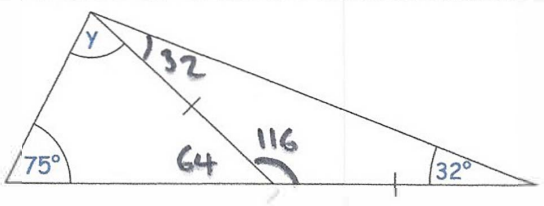
£28

$70 \div 5 = 14$

$14 \times 2 = 28$

Find the size of angle y

41°



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Name: Answers 5-a-day Platinum

15th June

$\frac{5}{6} \times \frac{9}{10}$

$= \frac{45}{60} = \frac{9}{12} =$

$\frac{3}{4}$

$96 + 4 \times 5$

116

These are the prices for school dinners in a primary school.

School Dinners

£8 will pay for 5 school dinners for one child.

£62 will pay for school dinners for 2 children for 20 days.

£8 will pay for 5 school dinners for one child.
Work out the cost of one of the school dinners.

8 ÷ 5 = £1.60

£62 will pay for school dinners for 20 days for 2 children.
Work out the cost of one of the school dinners for one child.

31 for 1 child

31 ÷ 20 = £1.55

Simplify

$2a + 7b - a + 3b$

$a + 10b$

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Name: Answers 5-a-day Platinum

16th June

$$\begin{array}{r} 41 \\ 17\overline{)697} \end{array}$$

$\boxed{41}$

45% of 240

10% = 24
40% = 96
5% = 12

$\boxed{108}$

Josie and Kirsty each get the same pocket money.

Josie spends 80% of her pocket money. She has £3 left. 20% left

Kirsty spends 30% of her pockey money. 70% left

How much does Kirsty have left?

£3 is 20%

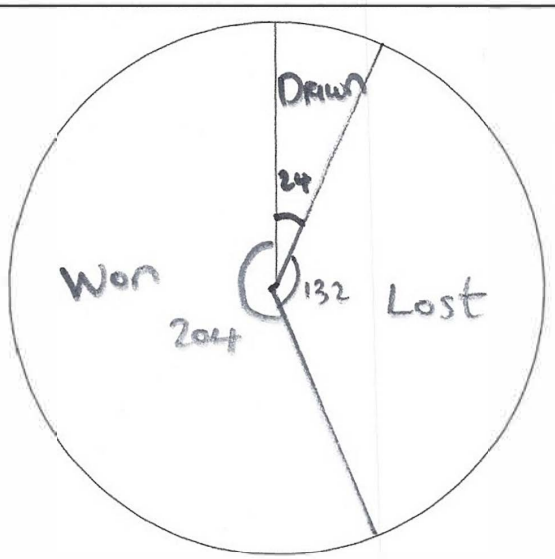
so 10% = £1.50

70% = £10.50

The table gives information about the results of the matches a rugby team played.

Result	Frequency	Angle
Won	17	204
Drawn	2	24
Lost	11	132

30 ×12



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Name: Answers 5-a-day Platinum

17th June

$$\frac{3}{5} + \frac{7}{12}$$

$\frac{36}{60} + \frac{35}{60} = \frac{71}{60}$

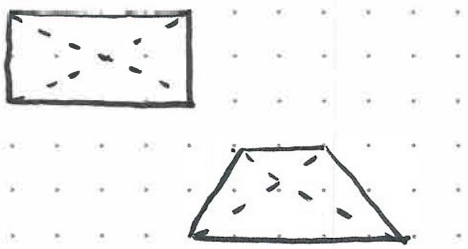
$\frac{71}{60}$ or $1\frac{11}{60}$

$$\begin{array}{r} 3175 \\ \times \quad 49 \\ \hline 28575 \\ 127000 \\ \hline 155575 \\ {\scriptstyle 1\,1} \end{array}$$

155,575

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

(any rectangle)



Row 1	9	12	15
Row 2	16	19	22
Row 3	23	26	29
Row 4	30	33	36

What number comes at the end of row 30?

218

Which row has a sum of 204?

Row 9: (65, 68, 71)

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Name: Answers 5-a-day Platinum

18th June

$$\begin{array}{r} 9\,0\,2\,0\,0\,1 \\ +\,3\,7\,3\,1\,0\,3 \\ \hline 1\,2\,7\,5\,1\,0\,4 \end{array}$$

1275104

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

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

$\frac{2}{9}$

There are 600 members of a running club.
45% of these members are male.

Work out 45% of 600

270

10% = 60
5% = 30
40% = 240
} 270

Solve this equation to find the value of y

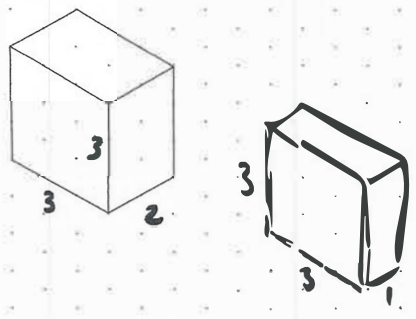
$$40 - 2y = 22$$

$2y = 18$

$y = 9$

Draw a cuboid with half the volume of the cuboid shown.

Vol = 3 × 3 × 2 = 18



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Name: Answers 5-a-day Platinum

19th June

7% of 300

1% is 3

7 × 3 = 21

21

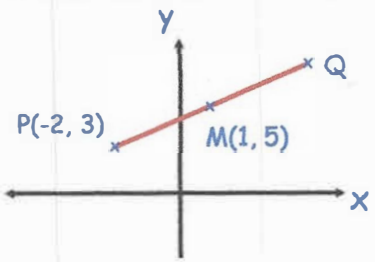
$$\begin{array}{r} 382 \\ \times\ 253 \\ \hline 1146 \\ 19100 \\ 76400 \\ \hline 96646 \end{array}$$

96646

M is the midpoint of PQ.

Find the coordinates of Q.

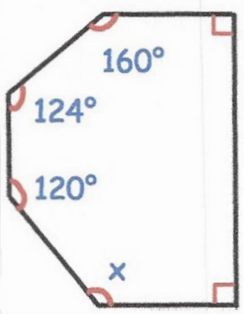
(4, 7)



Find x

total = 720°

720 − 584 = 136°



Find the fraction halfway between

$\frac{2}{3}$ and $\frac{4}{5}$

$\frac{11}{15}$

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

$\frac{22}{15} \div 2 = \frac{11}{15}$

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Name: Answers 5-a-day Platinum

20th June

0.4×400

160

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

$\frac{4}{3} - \frac{2}{5} =$

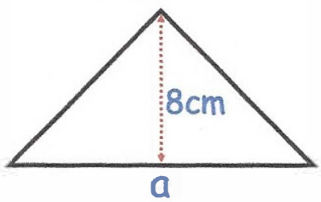
$\frac{20 - 6}{15} =$

$\frac{14}{15}$

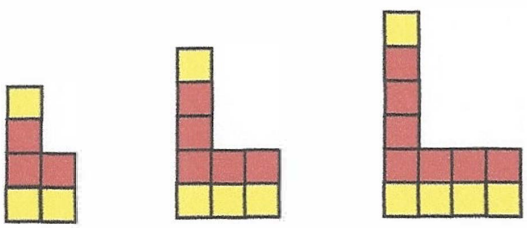
The area of this triangle is $52cm^2$

Find a

$52 \times 2 \div 8 = 13cm$



Here is a pattern of red and yellow squares



Which of the following are false?

A Pattern 10 has 12 yellow squares

B The number of red squares is always odd

C Every pattern has more red squares than yellow squares

D Pattern 4 has 9 red squares

False! (See pattern 1)

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Name: Answers 5-a-day Platinum

21st June

$5.18 - 3.54012$

$$\begin{array}{r} {}^{4}\cancel{5}.{}^{1}\cancel{8}{}^{7}\cancel{0}{}^{9}\cancel{0}{}^{1}\cancel{0} \\ -\ 3.54012 \\ \hline 1.63988 \end{array}$$

$\boxed{1.63988}$

85% of 6,000

10% is 600
5% is 300

15% is 900

6000 - 900 =

$\boxed{5100}$

What percentage of 20 is 13?

65%

$\frac{13}{20} = \frac{65}{100}$ ×5 ×5

There are 80 children in Year 6.

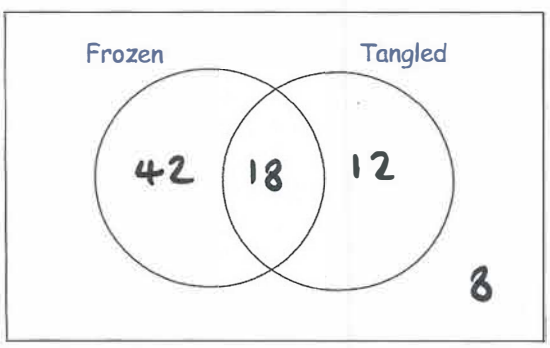
18 children have watched both the films Frozen and Tangled.

30 children have watched Tangled.

Twice as many children have watched Frozen than Tangled.

How many children have not watched Frozen or Tangled?

8



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Name: Answers 5-a-day Platinum

22nd June

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

$\frac{3}{2} \times 7 = \frac{21}{2}$

$\frac{21}{2}$ or $10\frac{1}{2}$

$100 - 20 \times 5 + 1$

1

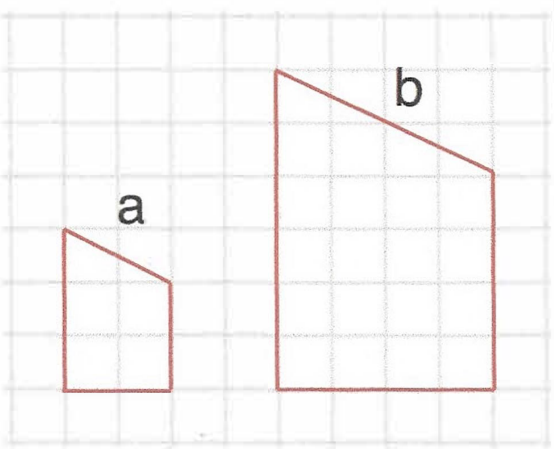
Round 8.198136 to 2 decimal places

8.20

Round 8.198136 to 3 decimal places

8.198

Here are two similar shapes



Write the ratio of side b to side a

2 : 1

Find the area of the largest shape

$\frac{4+6}{2} \times 4 = 20$

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Name: Answers 5-a-day Platinum

23rd June

20% of 7,600

10% is 760

20% is 1520

1520

1855 ÷ 35

$$35 \overline{)1855} \quad 53$$

53

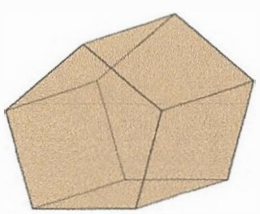
w = 12

Work out $5\mathbf{w} - 7$

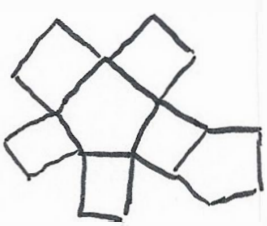
53

5×12 - 7 = 53

Here is a pentagonal prism.



Draw a net for the pentagonal prism.



In a class 20% of the children wear glasses.

25% of the children who **do not** wear glasses are boys.

What percentage of the class are **girls who do not wear classes**?

80% don't wear glasses

25% of 80% = 20%

60% of the class are girls w/o glasses

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Name: Answers 5-a-day Platinum

24th June

3.54×9

$$\begin{array}{r} 354 \\ \times \quad 9 \\ \hline 3\underset{4}{1}\underset{3}{8}6 \end{array}$$

$\boxed{31..86}$

$3{,}276 \div 14$

$$\begin{array}{r} 234 \\ 14\overline{)3\,2^{4}7^{5}6} \end{array}$$

$\boxed{234}$

Can you spot any mistakes?

1×1 isn't 2
so the correct answer
is $\frac{1}{18}$!!

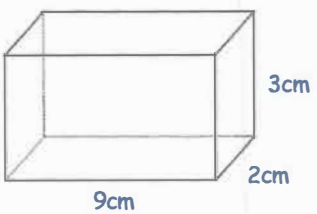
Work out

$$\frac{1}{3} \times \frac{1}{6}$$

$$\frac{2}{18} = \frac{1}{9}$$

Work out the volume of the cuboid.

$9 \times 2 \times 3 = \underline{54\text{cm}^3}$



In 2018, a Zoo had 320,000 visitors.

30% of the people visited in July.
15% of the people visited in June.

How many people visited the Zoo in the rest of the year?

30 + 15 = 45%

55% of 320,000

$= 160{,}000$
$+ \ 16{,}000 = \underline{176{,}000}$

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Name: Answers 5-a-day Platinum

25th June

$\frac{1}{2} \times \frac{1}{3} \times \frac{1}{4}$

$\frac{1}{24}$

$1{,}321{,}484 - 809{,}667$

$511{,}817$

Barry and Harry go for a meal.

Barry's meal costs £8.80 and his drink costs £4.80.

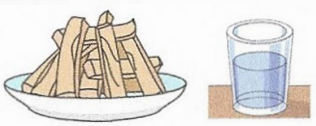
Harry's meal costs £9.20 and his drink cost £3.50.

They have a voucher that gives 40% off their meals, but **not** the drinks.

They also pay a £5 tip.

Barry and Harry share the cost equally. How much does each person pay?

£12.05



Drinks: 4.80 + 3.50
= £8.30

Meal: 8.80 + 9.20 = 18

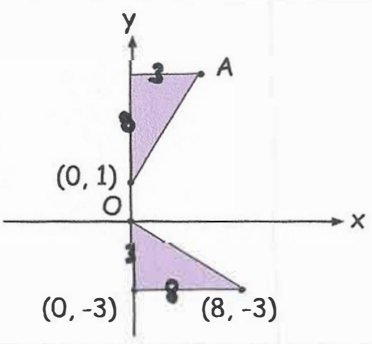
60% of 18 = £10.80

total bill 10.80 + 8.30 + 5
= £24.10

The two triangles are identical.

Find the coordinates of point A

(3, 9)



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Name: Answers

5-a-day

Platinum

26th June

95% of 60

10% is 6
5% is 3

60 - 3 =

57

$$\begin{array}{r} 1145 \\ \times \quad 51 \\ \hline 1145 \\ 57250 \\ \hline 58395 \end{array}$$

58,395

There are 40 beads in a bag.
Each bead is either red or yellow.

8 beads are yellow.

Write down the ratio of red beads to yellow beads

32 : 8 or
4 : 1

The mean of the numbers on these four number cards is 5.

6 7 3 4

Find the missing number.

total = 5 × 4 = 20
20 - 6 - 7 - 3 = 4

Lily gives $\frac{2}{3}$ of a cake to Leo.

Leo shares this piece of cake equally between Phoebe, Ruby and himself.

What fraction of the whole cake does Ruby receive?

$$\frac{2}{3} \div 3 = \frac{2}{9}$$

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Name: Answer 5-a-day Platinum

27th June

$20 \times 2\frac{1}{4}$

$20 \times \frac{9}{4} = \frac{180}{4} = \frac{90}{2}$

45

$42 - 2 \times 12$

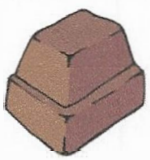
18

A chocolate bar weighs 80g.

A special edition bar weighs an extra 35%.

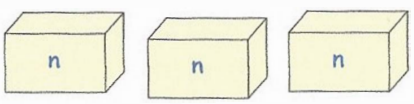
Work out how much the special edition bar weighs.

108g



10% is 8
5% is 4
30% is 24
35% is 28
80 + 28 = 108

Megan has three boxes.
Each box contains *n* beads.



She puts all her beads together and then adds 7 more beads.

Write down how many beads Megan has?

$3n + 7$

Here are four numbers written as Roman numerals.

VIII	L	CC	MCC
8	50	200	1200

Find the mean of these four numbers

1200 + 200 + 50 + 8 = 1458

1458 ÷ 4 = 364.5

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Name: Answers 5-a-day Platinum

28th June

$\frac{2}{11} \div 2$

$\frac{1}{11}$

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

$\frac{10}{3} - \frac{7}{4}$

$= \frac{40-21}{12} = \frac{19}{12}$

$\frac{19}{12}$ or $1\frac{7}{12}$

A piece of rope is 2.3 metres long.

Jenna cuts the rope into 8 pieces of equal length.

How long is each piece of rope?

0.2875 m

$2.3 \div 8$

$= 0.2875$

Two numbers have a sum of 2
The same numbers have difference of 6

What are the two numbers?

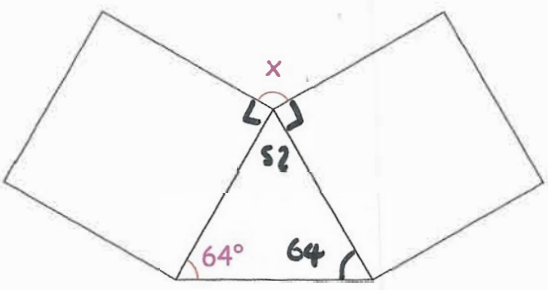
4 and -2

Here is an isosceles triangle and two squares.

Find x

$x = 360 - 90 - 90 - 52$

$= 128°$



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Name: Answers

5-a-day

Platinum

29th June

55% of 4,600

50% is 2300
5% is 230

2530

$\frac{7}{10} \div 3$

$\frac{7}{10} \times \frac{1}{3} = \frac{7}{30}$

$\frac{7}{30}$

A group of people were asked which rugby team they supported.

Rugby Team	Frequency
England	20
France	5
Ireland	15
Scotland	25
Wales	25

90

Mr Davis wants to draw a pie chart to show these results.

What size should the angle be for France?

5 × 4 = 20°

What size should the angle be for Wales?

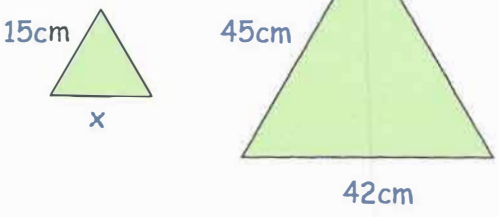
25 × 4 = 100°

The two triangles are mathematically similar.

Find x

42 ÷ 3 = 14cm

Not drawn accurately



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Name: Answers 5-a-day Platinum

30th June

65×895

```
  8 9 5
    6 5
  ------
  4 4 7 5
5 3 7 0 0
---------
5 8 1 7 5
```

58,175

$18 \div 5$

3.6

Ava has 24 crates of oranges.

Each crate weighs 42.3 kilograms.

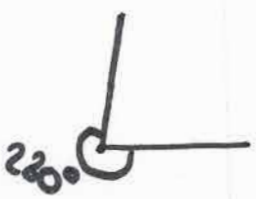
Ava's van can hold up to **one tonne.** (1000 kg)

Will the van be able to carry all 24 crates?

24×42.3
$= 1015.2$ kg > 1000 kg

NO

Draw a 280° angle



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

Write the year MMXIV in figures.

2014

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