

Name: _____

HEROES TUITION

November Homework

Maths
Platinum

Please return this booklet to your maths teacher by the end of the month.

All answers will be sent to your parents or guardians, so please ensure it is marked before handing it in.



Heroes Tuition Centre - Homework

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1st November

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

$$112^2$$

A car travels at 55 miles per hour for 3 hours.
How far does the car travel?



Miss Rodgers is buying rulers.
20 rulers cost £5.60
10 rulers cost £3.25
1 ruler costs 75p
Miss Rodgers has £20 to spend on rulers.

What is the greatest number of rulers she can buy?

Here is a pattern of number pairs

a	b
1	5
2	7
3	9
4	11

Complete the rule for the number pattern

$$b = \square \times a + \square$$

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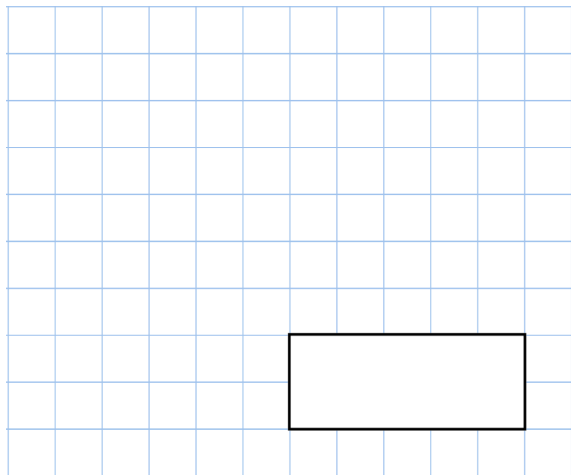
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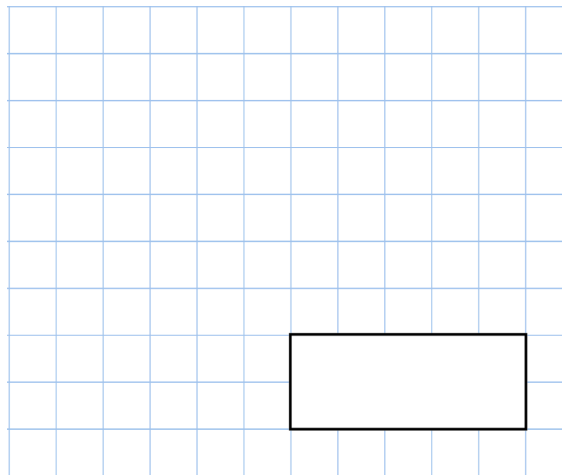
2nd November

70% of 1,250



A 20x10 grid for working out 70% of 1,250. A rectangular box is drawn at the bottom right of the grid.

$$\frac{\square}{0.5} = 314$$



A 20x10 grid for working out the missing number in the equation. A rectangular box is drawn at the bottom right of the grid.

Draw a 300° angle




A blank space for drawing a 300-degree angle.

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

There are 24 red apples in the bag.

How many apples are in the bag?



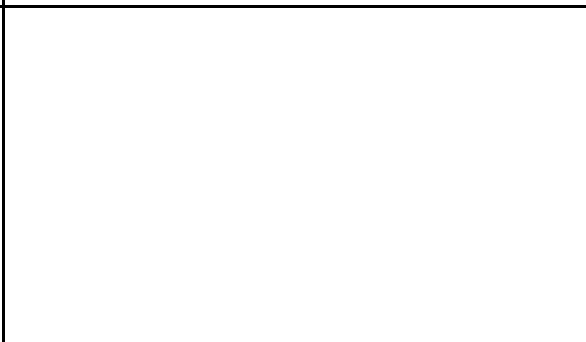
A blank space for solving the word problem.

m is a whole number.

$7m$ is greater than 50

$10m$ is less than 130

Write all the numbers that m could be



A blank space for solving the inequality problem.

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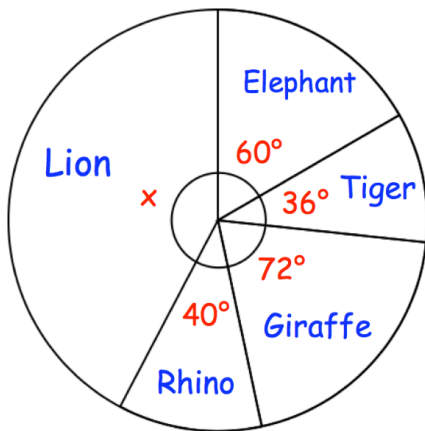


3rd November

$$7 + 7 + 7 + 7 \times 7$$

$$\begin{array}{r} 195 \\ \times 163 \\ \hline \end{array}$$

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



Find the size of the angle x.

What fraction of children liked Rhino best?

Alan has 5 more sweets than Bryan.
Clara has 2 sweets less than Bryan.
Altogether they have 30 sweets.

How many sweets does Alan have?

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4th November

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

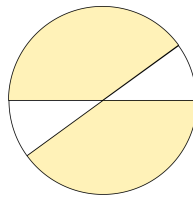
$$40 - 3^3$$

Find the remainder when 1,520 is divided by 32.

In this circle, each shaded part is $\frac{4}{9}$ 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?



Anthony and Elise have the same number of football cards.

Anthony has sorted his cards into piles of 10.

Elise has sorted her cards into piles of 18.

How many cards do they each have?

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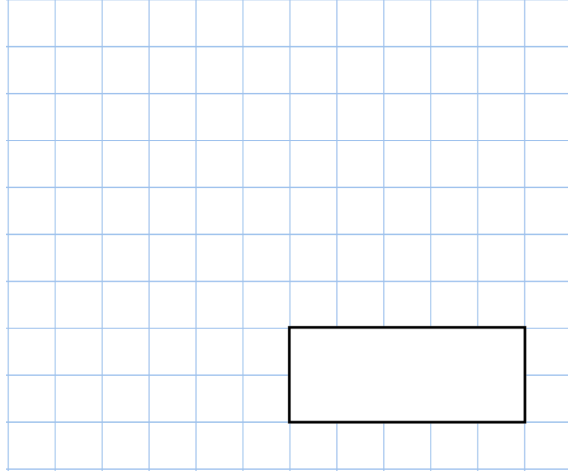
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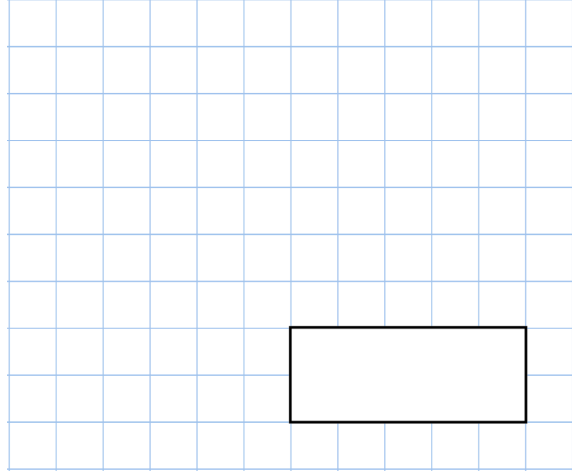


5th November

$$1\frac{1}{5} \times 10$$



$$896 \div 28$$



Simplify

$$6a + 3b - 2a + b$$

A shop sells drinks.

Harry buys 2 coffees and 1 tea for £8.70

Mia buys 2 coffees and 4 teas for £16.80

How much does one tea cost?

Work out the value of m

$$9m + 12 = 66$$

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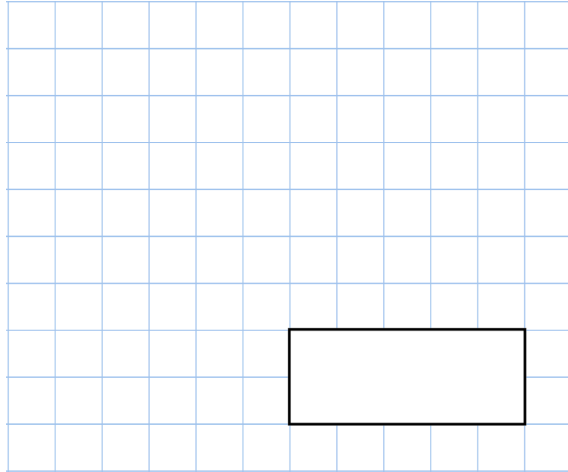
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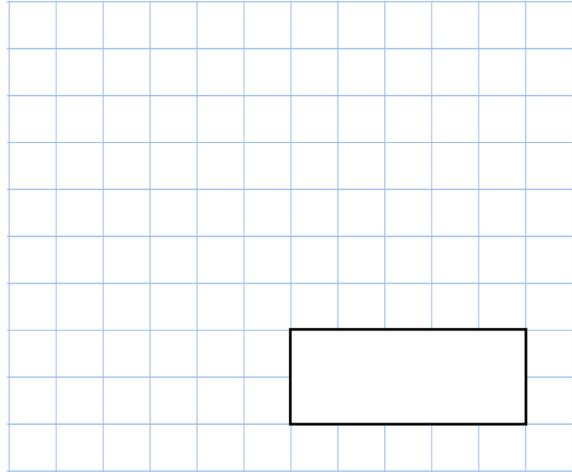


7th November

$$5\% \times 1,600$$



$$0.6 \times 210$$



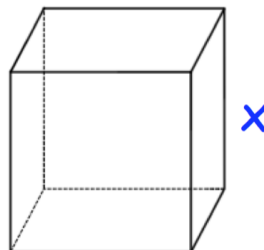
Here is an equation

$$m = 120 - 3c$$

Find the value of c when $m = 90$

A cube has a volume of 125cm^3

Find x



Farmer Smith has 50 more sheep than Farmer Jones.
Farmer White has three times as many sheep as Farmer Jones.

In total there are 1,050 sheep.

How many sheep does Farmer Jones have?



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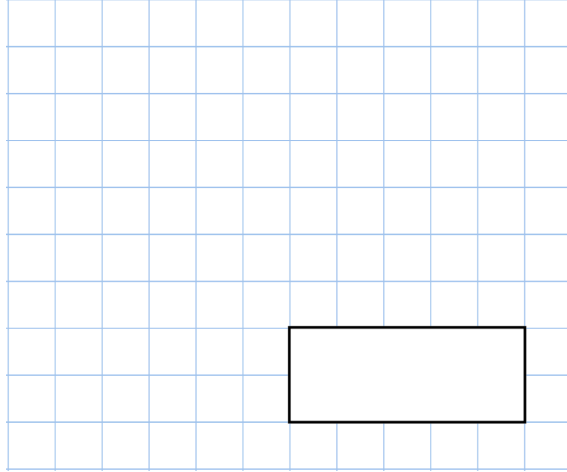
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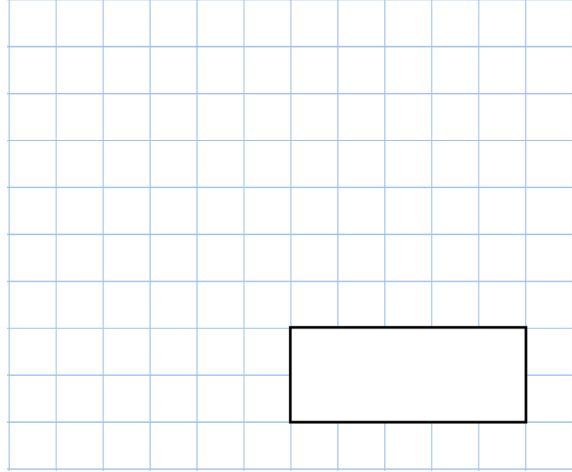


8th November

$$\frac{7}{9} - \frac{1}{6}$$



$$0.06 \times 23$$



Write $\frac{9}{20}$ as a percentage

A gardener plants daffodil bulbs in her garden.

For every 2 yellow bulbs, she plants 5 white bulbs.

She plants 40 white bulbs.

How many bulbs does she plant in total?



In a triangle the largest angle is four times the size of the smallest angle.

The other angle is 30 degrees larger than the smallest angle.

Write down the sizes of the three angles.

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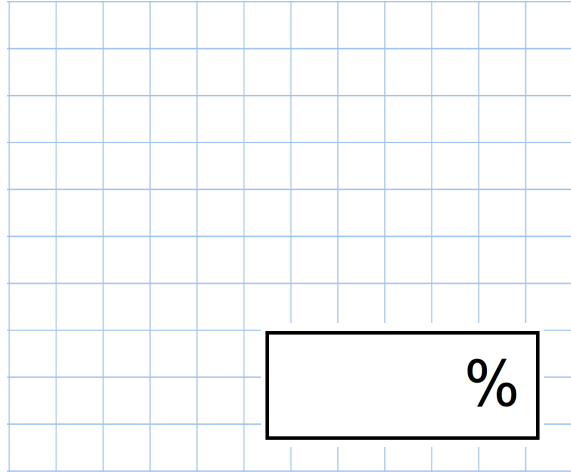
Platinum



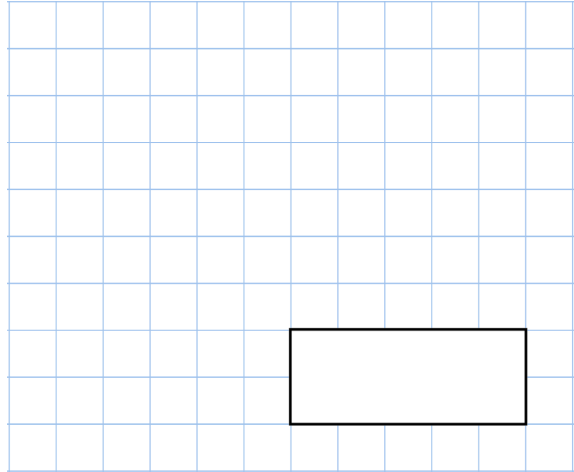
9th November

$$\frac{2}{3} = \boxed{}$$

$$7 \times 7 \times 8 \times 8$$



$\boxed{}$ %



$\boxed{}$

Chair World
2 chairs for £30
or £18 each



Chair'R'us
4 chairs for £58
or £19 each

Land of Chairs
3 chairs for £46
or £20 each

Henry wants to buy 9 chairs.
Which show is the best value for money?

A factory makes 8,000 bottles of lemonade.
Each bottle contains 250 millilitres.

How many litres of lemonade does the factory make?

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11th November

$$2360 \div 59$$

$$1\frac{1}{4} \times 38$$

Emma scored 13 out of 25 in a quiz.

What percentage of the questions did Emma answer correctly?



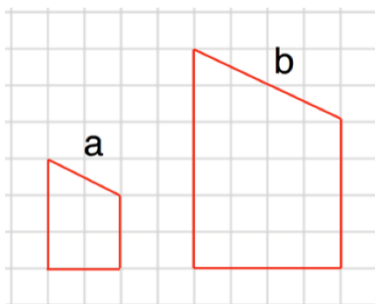
Patrick had some money

He spent £2.72 on a coffee.

He spent £1.74 on a muffin.

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

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



The two shapes are similar.

Write the ratio of side a to side b.

a : b =

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12th November

$$2\frac{1}{3} - \frac{5}{9}$$

55% of 750

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

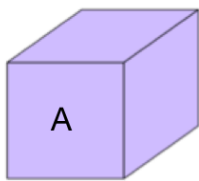
Use this multiplication to complete these calculations

$$8.4 \times 264$$

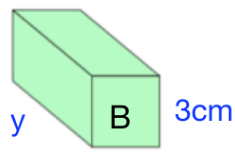
$$83 \times 264$$

$$84 \times 263$$

Cube A and Cuboid B have the same volume.



6cm



y

3cm

3cm

Calculate the missing length on the cuboid, y.

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13th November

$$2,716 \times 27$$

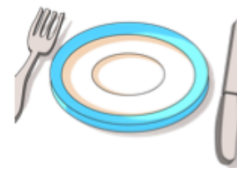
$$90 \overline{) 5580}$$

Gregory and his family go for a meal while on holiday in Florida.

They are told it is normal to tip 15%.

The meal costs \$90.

Gregory tips \$12, is this enough?



Josie and Kirsty each get the same pocket money.

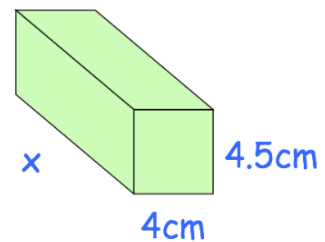
Josie spends 90% of her pocket money.
She has £0.50 left.

Kirsty spends 40% of her pockey money.

How much does Kirsty have left?

Find the length of this cuboid

Volume: 432cm^3



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14th November

$$15.74 \times 6$$

$$1\frac{1}{2} \times 15$$

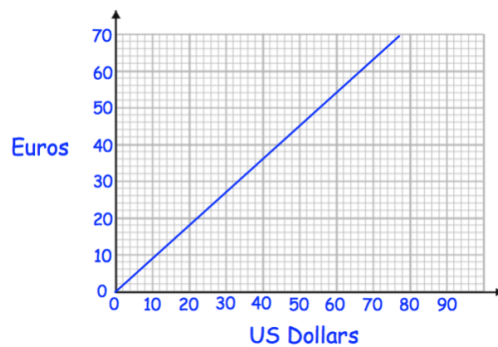
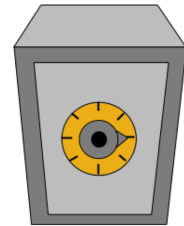
Charlie's password is made up of six **different** digits.

He remembers it as two 3-digit numbers.

The first 3-digits is a square number between 100 and 200.

The second 3-digits is a cube number between 100 and 200.

List all his possible passwords



Change \$40 into Euros (€)

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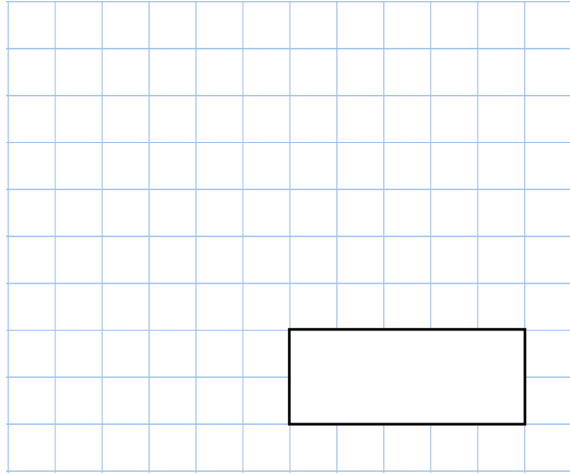
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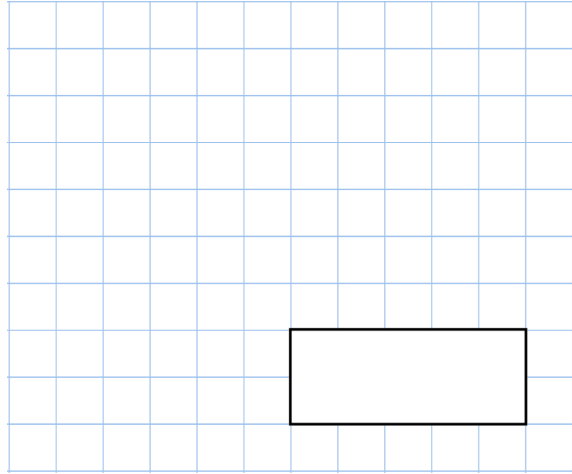


15th November

$$396 \div 22$$



$$0.7 \times 400$$



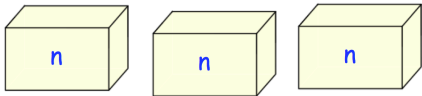
A chocolate bar weighs 70g.

A special edition bar weighs an extra 35%.

Work out how much the special edition bar weighs.



Megan has three boxes.
Each box contains n beads.

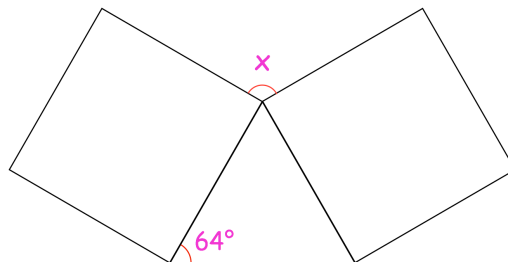


She puts all her beads together and then adds 2 more beads.

Write down how many beads Megan has?

Here is an isosceles triangle and two squares.

Find x



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17th November

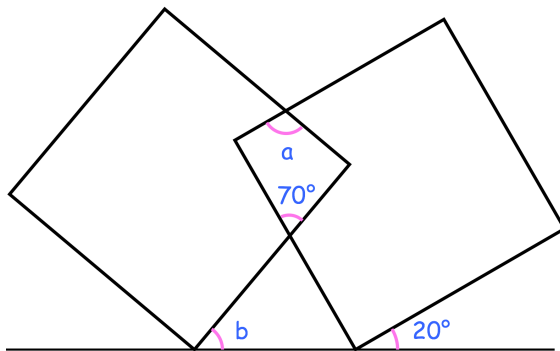
$$1\frac{3}{10} - \frac{5}{6}$$

$$\frac{4}{9} \div 3$$

$$w = 3 \quad \text{and} \quad y = 19$$

Work out $9w - 2y$

This diagram shows a straight line and two overlapping squares.



Find the size of angle a

Find the size of angle b

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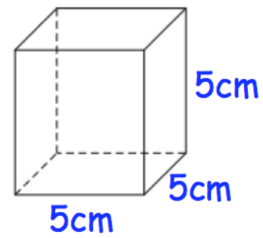


18th November

$$0.34 \times 62$$

$$85\% \text{ of } 240$$

Work out the volume of the cube.



Work out the value of u

$$4u - 5 = 27$$

Katie has a pet dog, Maxi.

Maxi eats **two-thirds** of a can of dog food each day.

How many cans of dog food should Katie buy to last three weeks?



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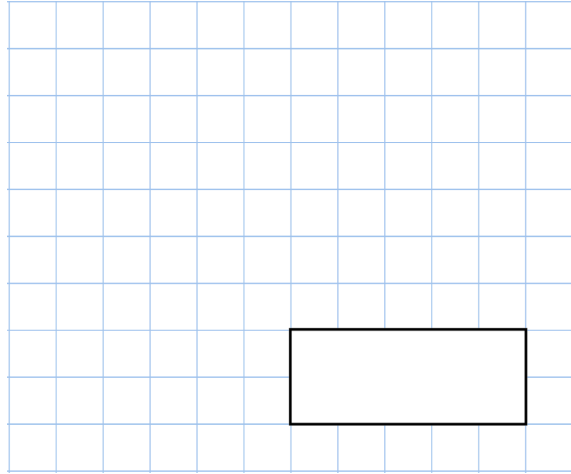
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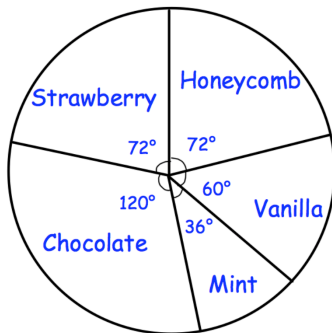
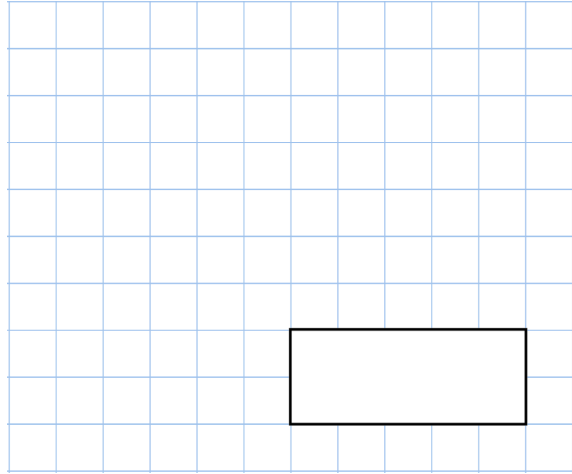


19th November

$$\frac{9}{20} \div 3$$



$$0.062 \times 1,000,000$$



The pie chart shows the flavours of 270 ice creams sold.

How many chocolate flavoured ice creams were sold?

Last week Dara read $\frac{3}{5}$ of his book.

This week he read the **other** 120 pages to finish his book.

How many pages are there in Dara's book?

Find the value of y in this equation

$$8 + 2y = 80 - 6y$$

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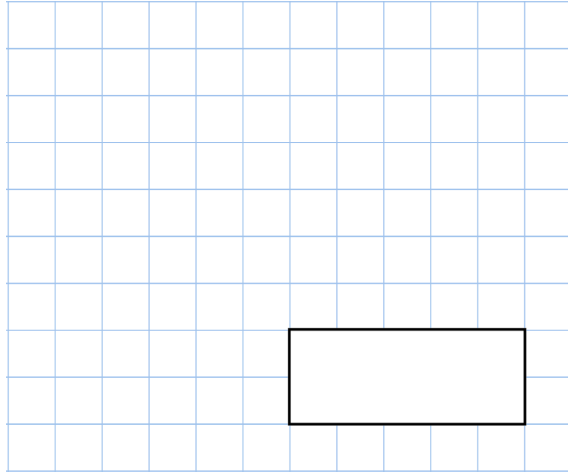
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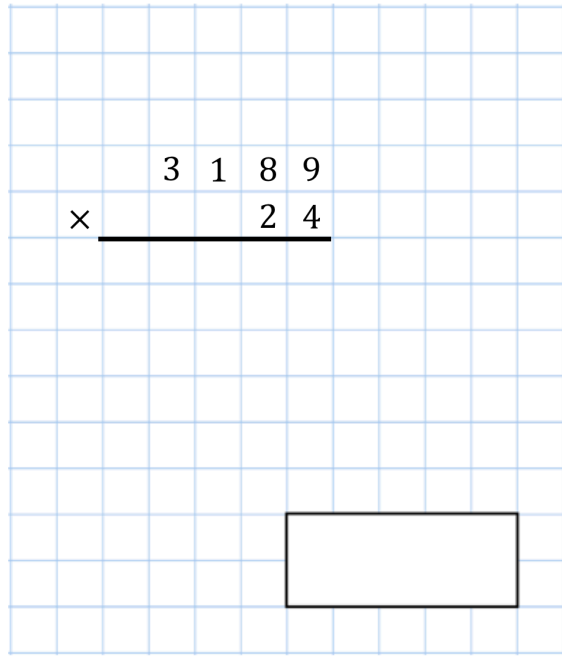


20th November

$$3^4$$



$$\begin{array}{r} 3189 \\ \times \quad 24 \\ \hline \end{array}$$



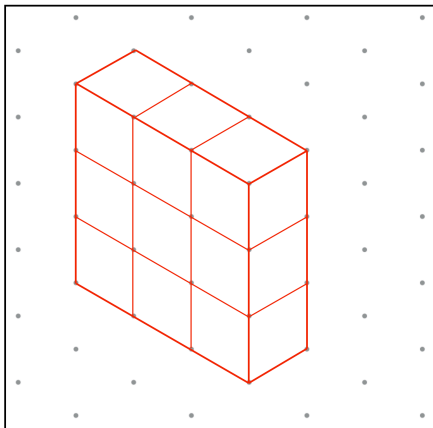
In 2018, a Zoo had 600,000 visitors.

40% of the people visited in July.

25% of the people visited in June.

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

Ethan uses nine cubes to make a cuboid.



He then removes three cubes, leaving the other cubes where they are.

Draw what the new shape could be



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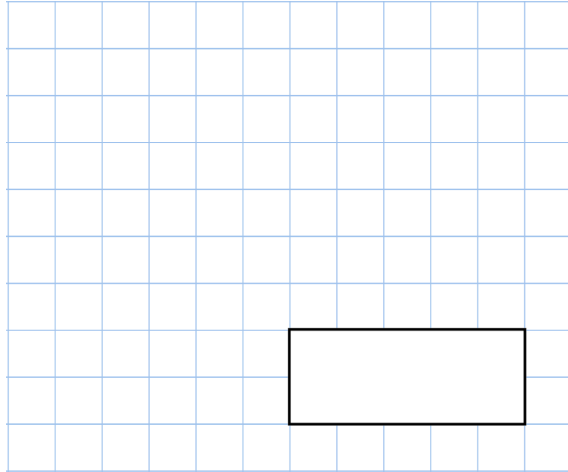
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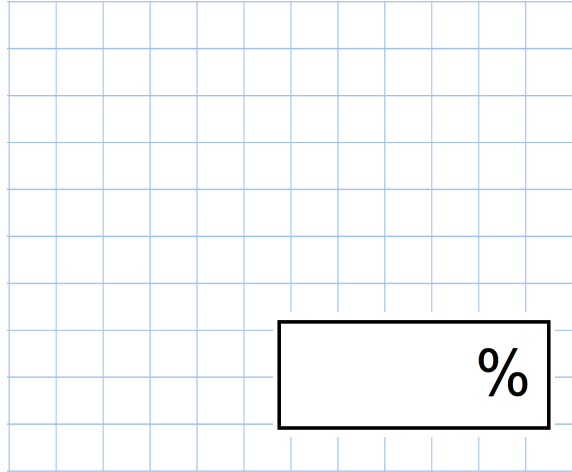


21st November

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



$$\frac{1}{3} = \boxed{} \%$$

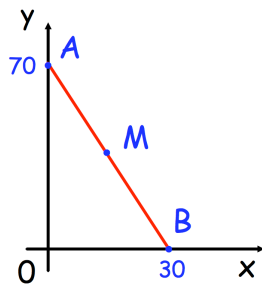


James says that a triangle is right angled.

Olivia says that the same triangle is isosceles.

They are both correct.

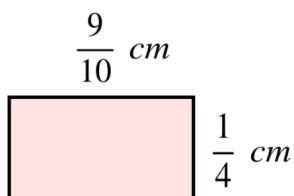
Explain how.



In this diagram M is an equal distance from A and B.

What are the coordinates of M?

Work out the perimeter of this rectangle



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22nd November

$$2,446 \times 31$$

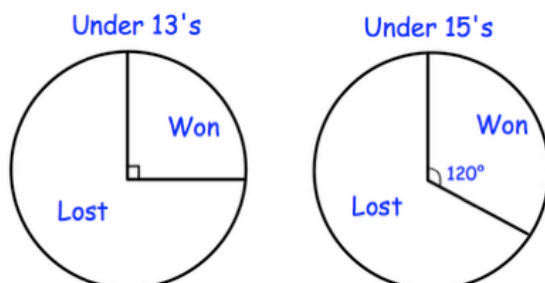
$$40 \times 5^2$$

Work out the value of n

$$n - 4 = 6$$

A school has two rugby teams, Under 13's and Under 15's.

The pie charts show information about the number of matches each team won and lost, last season.



The Under 13's played 28 matches.
The Under 15's played 18 matches.

Tick the statements that are true

- The Under 15's won a **third** of their matches
- The Under 13's lost a **quarter** of their matches
- The Under 13's won 7 matches
- The Under 15's won more matches than the Under 13's

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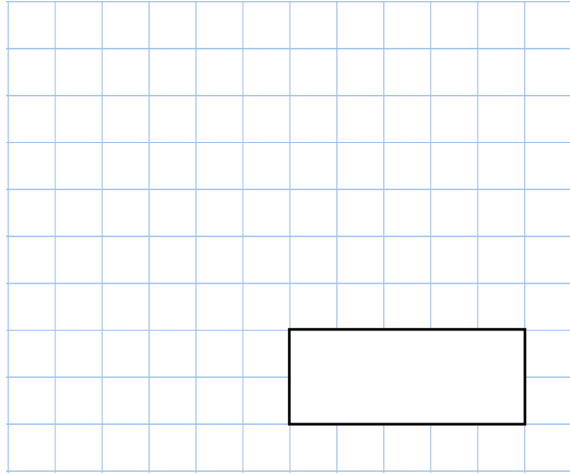
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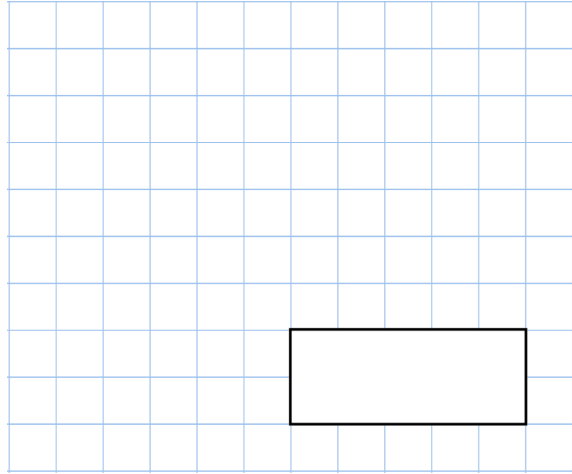


23rd November

$$0.85 \times 20$$

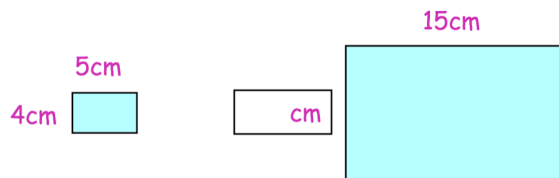


$$\frac{23}{30} - \frac{1}{4}$$



Here are two similar rectangles.

Work out the missing length.



In a season, Torquay United

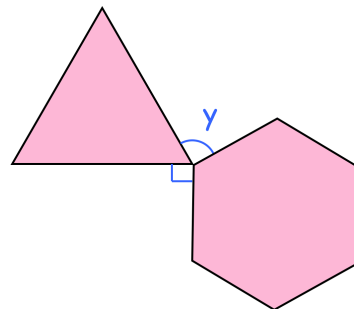
Win 55% of their matches

Draw $\frac{1}{3}$ of their matches

What fraction of their matches did Torquay United lose?

Shown is an equilateral triangle and a regular hexagon.

Find y .



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24th November

$$2,625 \div 105$$

$$1.04 \times 72$$

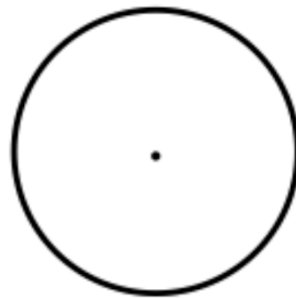
Esme says that

$$36 + 8 \div 4 = 11$$

Is Esme correct?

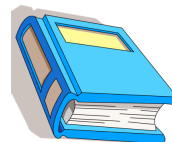


Draw the radius



Seamus Heaney was born in the year 1939.

Write 1939 in Roman numerals



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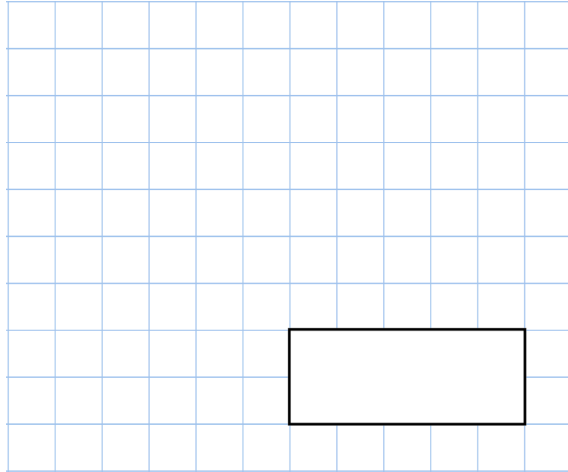
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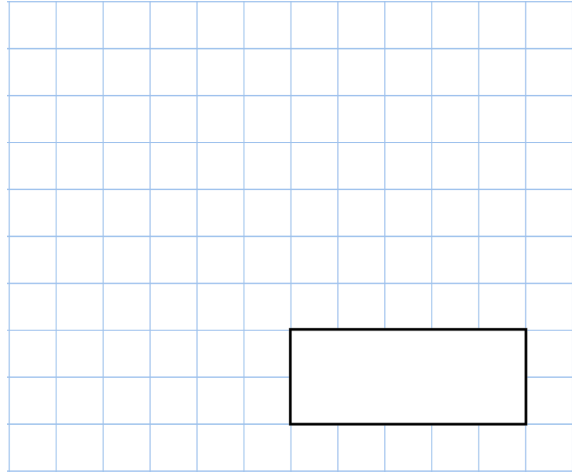


25th November

$$4 \div 5$$



$$80 - 16 \div 8$$



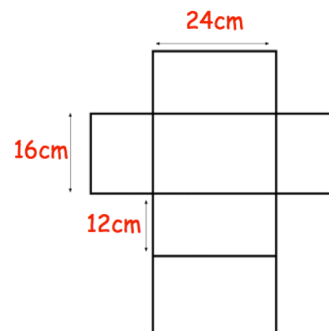
For every 5 50p coins, Laura has 3 £2 coins.

Laura has £10 in 50p coins.

How much money does Laura have altogether?

Shown is the net of a cuboid.

Work out the volume of the cuboid.



Flower pots normally cost £4 each.

Laura wants to buy 30 flower pots.

Gardenbase
20% off

Lawn Factory
Buy 5 get 2 free

Which shop should Laura buy them from?

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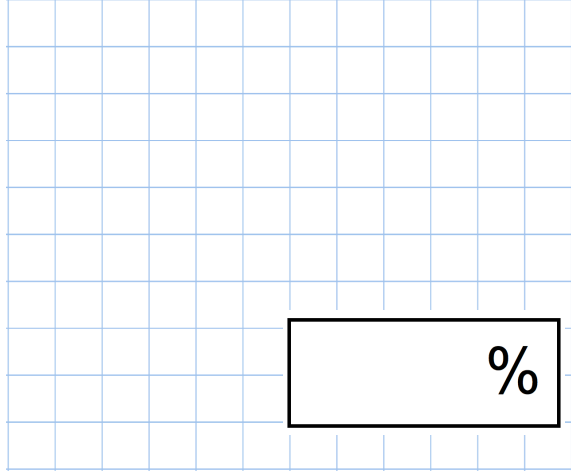
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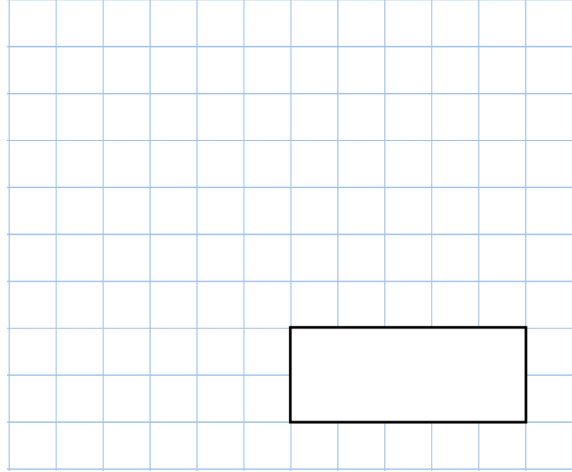


26th November

$$\frac{13}{20} = \boxed{} \%$$



$$\frac{7}{20} \times 6,880$$



Barry and Harry go for a meal.

Barry's food costs £9.80 and his drink costs £3.80.

Harry's food costs £9.20 and his drink cost £3.55.

They have a voucher that gives 20% off their food, but **not** the drinks.

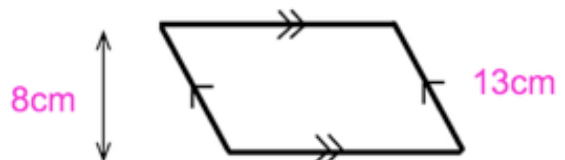
They also pay a £5 tip.

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



The perimeter of this parallelogram is 60cm

Find the area.



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27th November

$$1\frac{1}{10} - \frac{5}{6}$$

$$1,161 \div 43$$

Round 3.92314 to 2 decimal places

Round 3.92314 to 3 decimal places

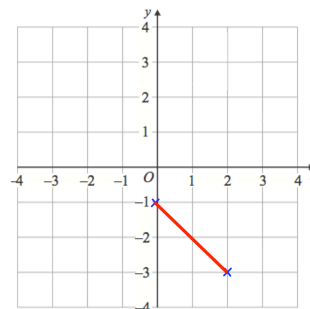
Georgia and Emma share 40 sweets in the ratio 2:3.

How many sweets does Emma get?



On the grid is one side of a quadrilateral with 3 acute angles.

Complete the quadrilateral



Heroes Tuition Centre - Homework

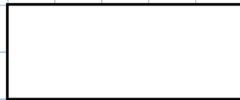
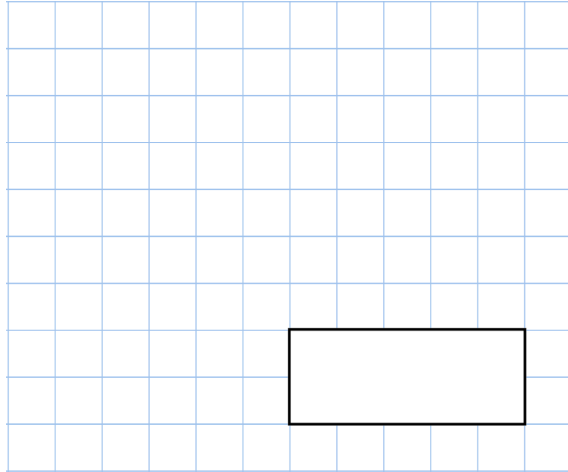
Name: _____

Platinum

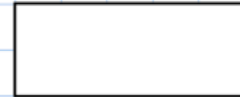
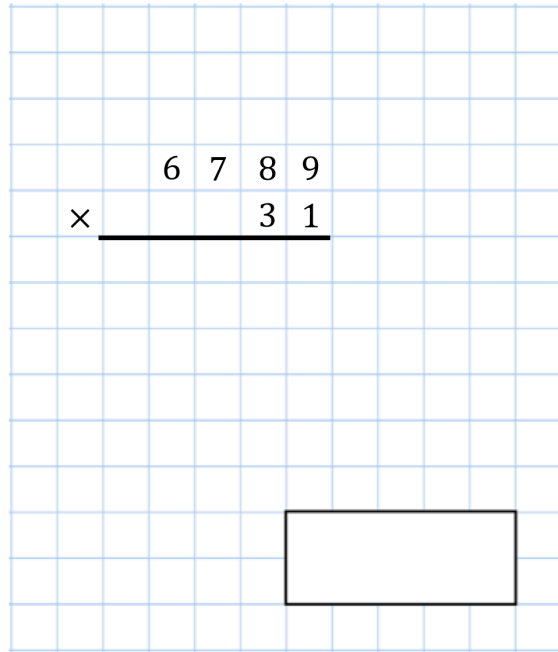


29th November

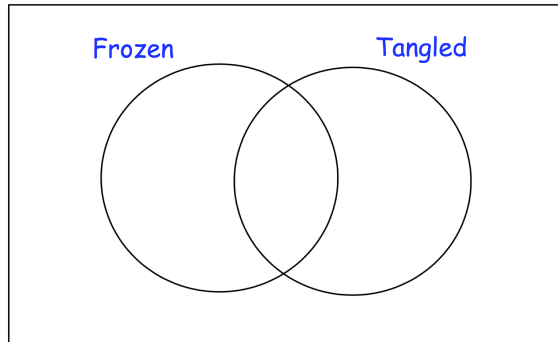
$$1.9 \times 46$$



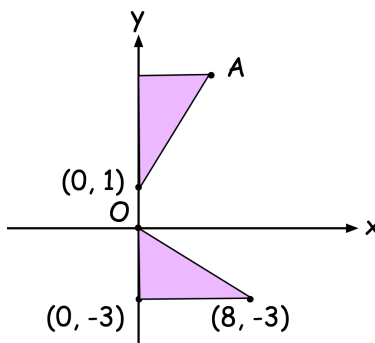
$$\begin{array}{r} 6789 \\ \times \quad 31 \\ \hline \end{array}$$



There are 90 children in Year 6.
23 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?



The two triangles are identical.
Find the coordinates of point A



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30th November

$$1,755 \div 65$$

$$2^3 \times 3^2$$

Brandon has completed his maths homework. Can you spot any mistakes?

Find the highest common factor of 18 and 36

Factors of 18: 2, 3, 6, 9

Factors of 36: 2, 3, 4, 6, 9, 12, 18

HCF = 9

Find the fraction halfway between

$$\frac{1}{4} \text{ and } \frac{2}{3}$$

An isosceles triangle has one angle of 44°

Write down the possible sizes of the other two angles in the triangle.

Pair 1 and

Pair 2 and