Name: _____

HEROES TUITION

October Homework
Maths
Platinum

Please return this booklet to you 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

1st October

$10^!$

$6\ 5\ |\ 3\ 5\ 1\ 0$

Work out the highest common factor (HCF) of 24 and 36

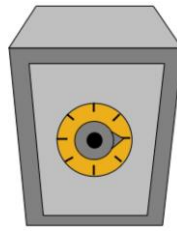Charlie's password is made up of six **different** digits.

He remembers it as three 2-digit numbers.

The first 2-digits is a square number between 10 and 30.

The second 2-digits is a prime number between 30 and 40.

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

List all his possible passwords

Heroes Tuition Centre - Homework
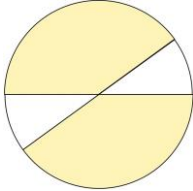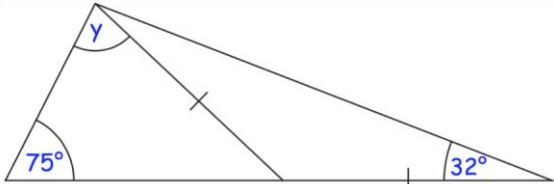
Name: _____   Primary 5-a-day   Platinum

2nd October

$$\square^! + 1{,}600 = 50^!$$

$$7{,}014 \div 14$$

In 2018, a Zoo had 520,000 visitors.

30% of the people visited in July.
35% of the people visited in August.

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

In this circle, each shaded part is $\dfrac{2}{5}$ 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?

Find the size of angle y

3rd October

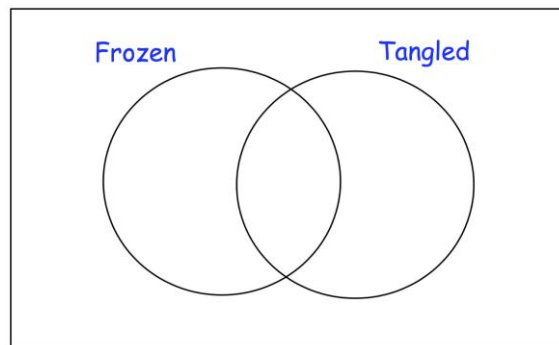$$\frac{\square}{\square} = 0.875$$

$$71 \times 254$$

There are 80 children in Year 6.

16 children have watched both the films Frozen and Tangled.

28 children have watched Tangled.

Twice as many children have watched Frozen than Tangled.

How many children have not watched Frozen or Tangled?

Frozen   Tangled

What percentage of 20 is 9?

Heroes Tuition Centre - Homework

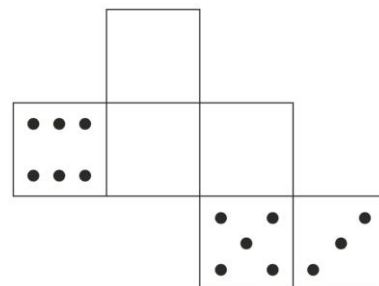Name: _____   Primary 5-a-day   Platinum

4th October

$$\frac{\square}{\square} = 0.05$$

$$20 - 4^!$$

On a dice, the opposite faces always have a sum of 7.

Draw dots on the three empty faces of the net so that it could   fold up to make a dice.

This diagram shows a park	Work out the fraction of the park that is the picnic area.
Play area $\frac{3}{5}$ **Tennis court** $\frac{1}{4}$ **Picnic area**	
Work out 10% of !	

Name:

Heroes Tuition Centre - Homework

5th October

$$\frac{4}{5} - \frac{1}{12}$$

40% of 90

Lucy, Jenny and Harriet share some money.
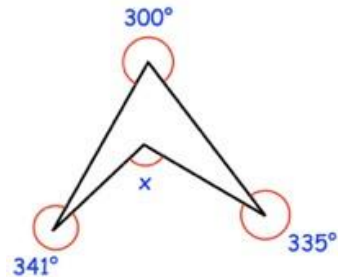
Lucy $\frac{1}{3}$ gets of the money.

Jenny $\frac{1}{4}$ gets of the money.

Harriet gets the rest of the money.

Lucy gets £16

How much more money does Harriet get than Jenny?

Find the size of angle x

Heroes Tuition Centre - Homework

Name: _____   Primary 5-a-day   Platinum

729 is both a square number and a cube number.

Find two other numbers that are both square numbers and cube numbers

---

6th October

$$3{,}276 \div 13$$

$$(10 - 4)^!$$

What is the smallest possible number Timothy could be thinking of?

Heroes Tuition Centre - Homework

What is the largest possible number Timothy could be thinking of?

I am thinking of a whole number. Rounded to the nearest 100 it is 600.

For every 5 50p coins, Laura has 4 20p coins.

Laura has £56.00 in 20p coins.

How much money does Laura have altogether?

7th October

76×2.3
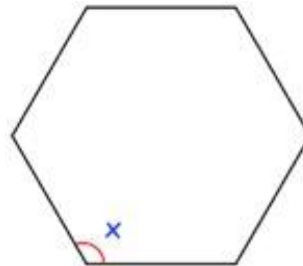
$15\% \times 680$

Heroes Tuition Centre - Homework

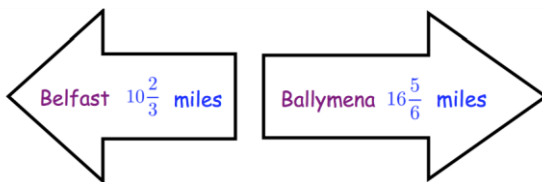|	
Here is a regular hexagon Find the size of each angle	
Chloe is building a fence for her garden. The fence costs £9.25 per metre to build. The fence is 16 metres long. Work out the total cost of building the fence	
Belfast $10\frac{2}{3}$ miles Ballymena $16\frac{5}{6}$ miles Work out the distance from Belfast to Ballymena.	

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Name: _____   Primary 5-a-day   Platinum

8th October

$$\frac{6}{11} \div 2$$

4 9 | 1 8 1 3

w + 8 = 13

Work out the value of **w**

This graph can be used to change between miles and kilometres.

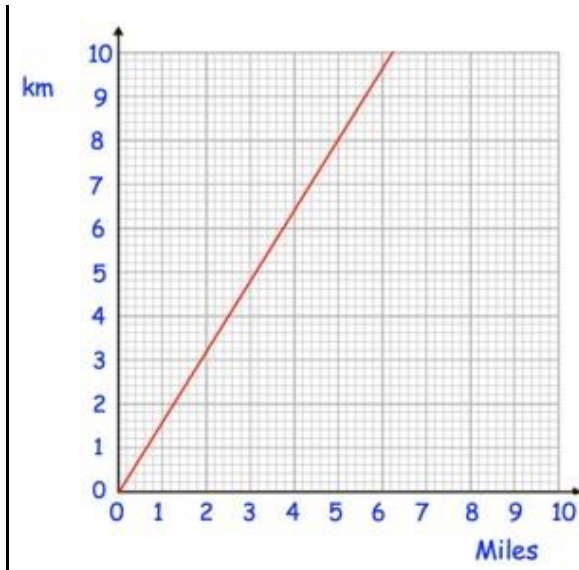Change 10 miles into kilometres

Heroes Tuition Centre - Homework

km
10
9
8
7
6
5
4
3
2
1
0
0 1 2 3 4 5 6 7 8 9 10
Miles

Change 40 kilometres into miles

9th October

9!

```
      1  6  5  4
×           2  6
```

There are 1625 sweets in a tub.
A group of friends share the sweets.

Each person gets 65 sweets.

How many friends are there?
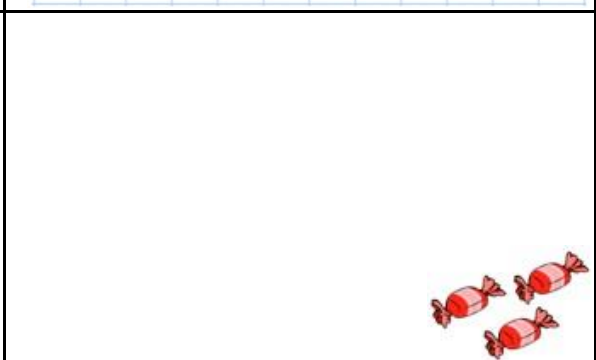
Heroes Tuition Centre - Homework

Write $\dfrac{1}{8}$ as a decimal

For every three 50p coins, Cain has two 20p coins.
Cain has £40 in 20p coins.

How much money does Cain have altogether?
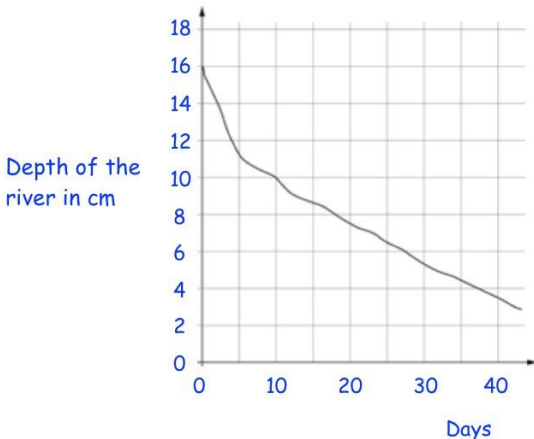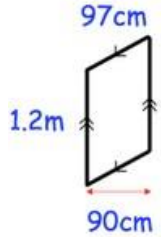

10th October

$6.2 \times 3,000$

$20\% \text{ of } 52$

Heroes Tuition Centre - Homework

	What was the depth of the river after 10 days?
Depth of the river in cm graph: y-axis marked 0, 2, 4, 6, 8, 10, 12, 14, 16, 18; x-axis marked 0, 10, 20, 30, 40 **Days**	
	How long did it take the river to go from a depth of 16cm to 11cm?

Work out the area of this parallelogram

97cm

1.2m

90cm

cm²

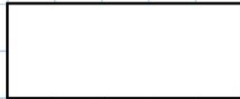# Heroes Tuition Centre - Homework
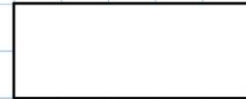
Name: _____

Primary 5-a-day

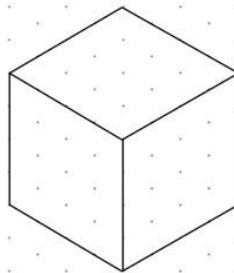Platinum

11th October

627×48

$-15 - 16$

Here is a drawing of a cube on an isometric grid.

Draw a cuboid that has the **same** volume of the cube.

Heroes Tuition Centre - Homework

Here are five number cards. The mean of the numbers on the five cards is 12. 13 5 18 2 [ ]	Work out the missing number

Name:

Heroes Tuition Centre - Homework

_____

12th October	
$1,072 \times 24$	$4,741 \div 11$
Write 15% as a fraction	
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 two weeks?	

Solve this equation

9**x** + 10 = 7**x** + 32

Heroes Tuition Centre - Homework

Name: _____   Primary 5-a-day   Platinum

13th October

$$\frac{\Box}{\Box} = 0.3$$

$$12 + 8 \times 13 + 7$$

Raheem draws an isosceles triangle on the grid.

Two of the points are

$(3, -1)$ $(-2, -2)$

Draw the triangle on the grid

Heroes Tuition Centre - Homework

Name: _____

Reflect your triangle in the x-axis.
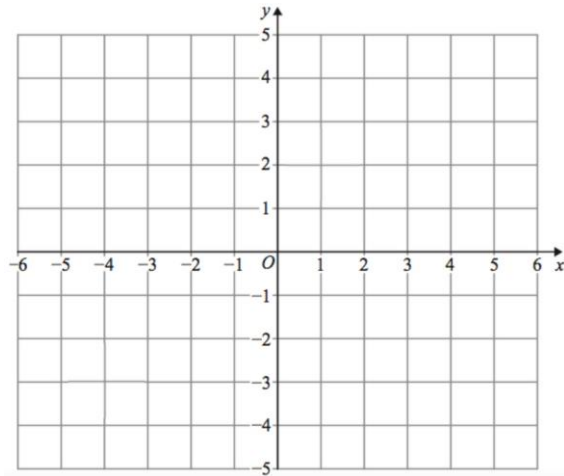
The cost of making a book can be found using this rule

Cost = number of pages × 5p
**   + 45p for the cover**

A book costs £6.05

How many pages does that book have?

14th October

$$15\% \times 5,000$$

$$2\frac{1}{2} \times 47$$

A cake has a mass of 600g.
36% of the cake is sugar.

How many grams of sugar are in the cake?

The letters a, b, c and d stand for numbers.

The sum of each row is given

a	a	a	a	24
a	a	b	b	28
b	c	c	c	29
a	b	c	d	31

Find the values of a, b, c and d

a =

b =

c =

d =

Heroes Tuition Centre - Homework

Name: _____   Primary 5-a-day   Platinum

Heroes Tuition Centre - Homework
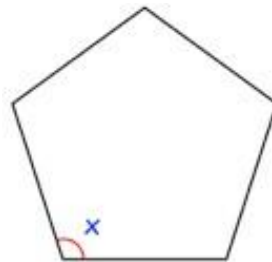
15th October

0.08×500

$$\begin{array}{r} 1\ 8\ 5 \\ \times \quad 1\ 3\ 4 \\ \hline \end{array}$$

Here is a regular pentagon.
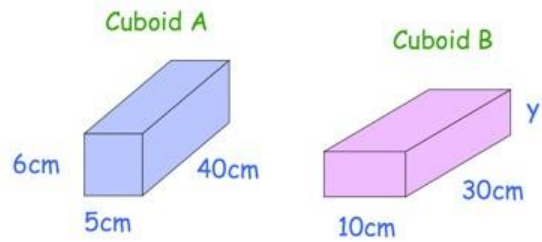
Find the size of each angle

n = 18

What is 20**n** + 70?

Cuboid A and Cuboid B have the same volume. Find the height of cuboid B.	Cuboid A Cuboid B 6cm 40cm y 5cm 30cm 10cm

16th October

9% of 7,000	$2\dfrac{1}{8} - \dfrac{1}{4}$
19 × 345 = 6,555 Use this multiplication to complete these calculations	190 × 345

Heroes Tuition Centre - Homework

19 x 34.5	20 x 345
Put brackets into the calculation to make it true 6 x 7 + 3 − 8 = 52	

Heroes Tuition Centre - Homework

Name:

_____

Primary 5-a-day   Platinum

17th October

$$\frac{9}{10} \div 2$$

45% of 260

Work out the value of **y**

3**y** = 24

The time taken for 4 friends to complete a crossword are

14 minutes
1,200 seconds
three quarters of an hour
25 minutes

$UUDQJHWKHWLPHVLQRUGHUVWDUWLQJ
ZLWK
WKHVKRUWHVW

Heroes Tuition Centre - Homework

Adam organised a charity concert at a theatre.	How much money did Adam raise?
The hall holds 35 rows of 42 seats. There were 50 empty seats.	
Each person paid £18.	

18th October

$120 - 30 \div 6$	$3,914 \times 27$

Work out the volume of this cube.	
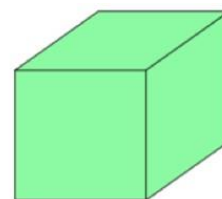
5m

Name:

Find three different prime numbers with a sum of 43	
	$\boxed{}$ **+** $\boxed{}$ **+** $\boxed{}$ prime number prime number prime number
The End MMXVI	Write the year MMXVI in figures

Heroes Tuition Centre - Homework

19th October

$1\dfrac{1}{3} + 3\dfrac{7}{10}$	4 2 $\overline{\smash{)}\,1\ 1\ 3\ 4}$
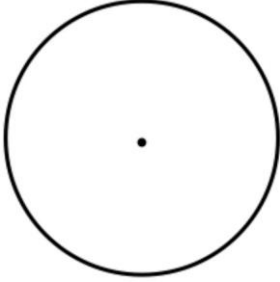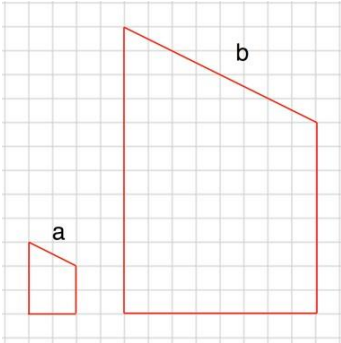
Heroes Tuition Centre - Homework

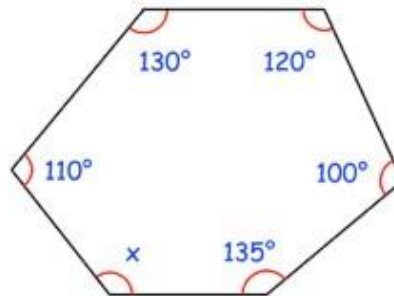|	
Draw the diameter on this circle	
Lindsey is planting daffodil bulbs For every 7 bulbs Lindsey planted, only 5 bulbs grew into daffodils Altogether 70 daffodils grew	How many bulbs did Lindsey plant?
Here are two similar shapes. Write down the ratio of side a to side b. a : b = [:]	

20th October

$$180 \times \frac{4}{5}$$

$$18 \overline{)1 6 3 8}$$

Find the size of angle x.

Burt is making cupcakes
He has made 400 cupcakes.
Burt places the cupcakes in boxes of 18.

How many boxes can he fill?
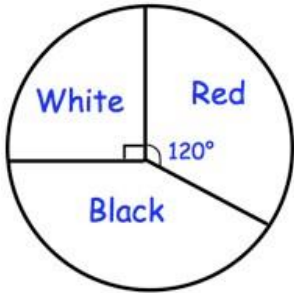
Heroes Tuition Centre - Homework

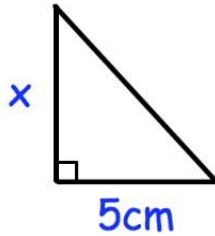Name: _____   Primary 5-a-day   Platinum

The pie chart shows information about the 72 counters in a bag.

How many counters are black?

White   Red

120°

Black

Heroes Tuition Centre - Homework

Name: _____   Primary 5-a-day   Platinum

21st October

$$5,040,118 - 1,876,094$$

```
    3 7 9 1
  ×     3 1
```

The area of the triangle is 21!"¹

Find the height of the triangle, x

x

5cm

A new snack bar contains 12g of sugar.

$\frac{1}{!}$ of the snack bar is sugar.

Work out the mass of the snack bar

Work out the value of u

$2u - 9 = 6$

22nd October

31×2.8
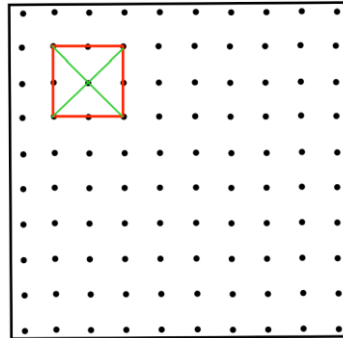
$5\% \ of \ 630$

Heroes Tuition Centre - Homework

Draw a 305° angle

Write $\dfrac{!"}{!"}$ as a percentage

The diagonals of a square cross at right angles.

On the grid, draw a different type of quadrilateral where the diagonals do not cross at right angles

Heroes Tuition Centre - Homework

Platinum

Primary 5-a-day

23rd October

$$\frac{5}{9} \times \frac{1}{2}$$

$$40 - (1 + 3)^!$$

A bus travels 180 miles at a speed of 40 miles per hour.
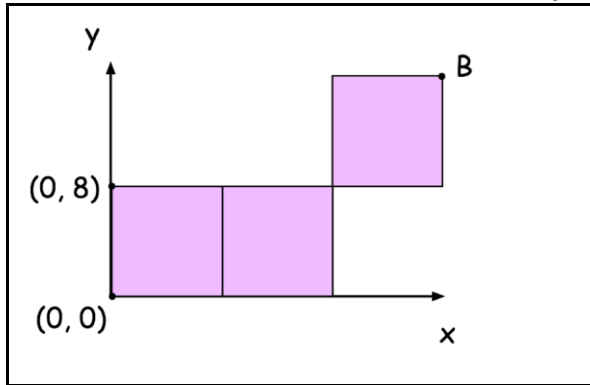
How long does the journey take?

Find the lowest common multiple (LCM) of 18 and 20

Heroes Tuition Centre - Homework

Three squares are placed on a grid.

:ULWHGRZQWKHFRRUGLQDWHVRIWKH
SRLQW%

©

24th October

$71 \div 4$

12% of $3,000$

Two whole numbers multiply together to give an answer of 800.

Neither of the numbers contains the digit zero.

What are the two numbers?

Heroes Tuition Centre - Homework
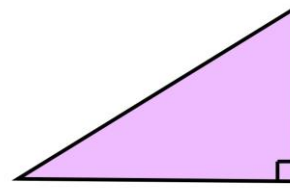
Name: _____   Primary 5-a-day   Platinum

The area of this triangle is 54!"'!

Find the height of the triangle.

12cm

Estimate the value of

9.03 + 19.87 x 3.08 − 4.97

25th October

$0.6 \times 2,000$

$1,326 \div 17$

Heroes Tuition Centre - Homework

Matthew says that

$$9 + 4 \times 2 = 26$$

Is Matthew correct?

The perimeter of this shape is 86cm

Find the missing length

6cm

cm

6cm

24cm
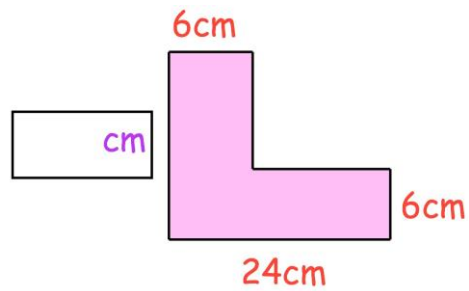
Work out the difference between the square root of 64 and the square root of 169.

Name:

Heroes Tuition Centre - Homework

26th October

$80\% \times 700$

$4\dfrac{1}{5} - \dfrac{1}{3}$

Complete the table

Shape	Angles add up to
Triangle	180°
Quadrilateral	360°
Pentagon	
Hexagon	

Work out the value of **k**

$16 - k = 5$

Heroes Tuition Centre - Homework

Name: _____

Primary 5-a-day   Platinum

Work out the volume

5cm   22cm

12cm
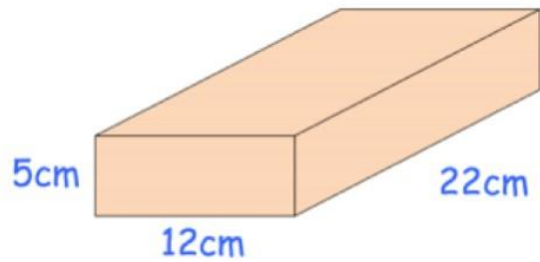
27th October

1.76×8

3 5 | 4 3 4 0

This sequence increases by an equal amount each time.

Find the three missing numbers

| 6 | | | | 32 |

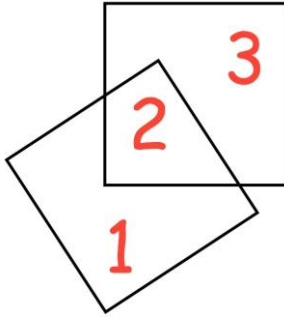# Heroes Tuition Centre - Homework

This diagram shows two squares that overlap to make 3 regions.

What is the greatest number of regions that can be made using two overlapping squares?

28th October

$\dfrac{1}{8} \div 4$
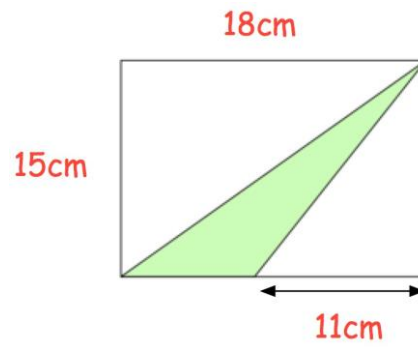
$-60 + 125$

Heroes Tuition Centre - Homework

Find the shaded area	18cm 15cm 11cm
Work out the value of x $5x + 20 = 35$	
Convert 3.5 kilometres into millimetres	

Heroes Tuition Centre - Homework

Name: _____

Primary 5-a-day

Platinum

29th October

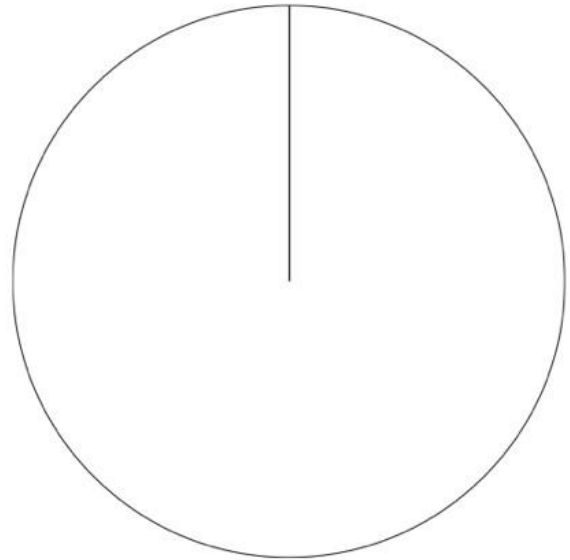$$\frac{7}{20} = \boxed{\qquad} \%$$

$$\boxed{\qquad \%}$$

$$2\ 4\ \overline{)\ 3\ 8\ 8\ 8}$$

$$\boxed{\qquad}$$

Draw a pie chart to show this information

Breed	Frequency
Spaniel	11
Poodle	7
Greyhound	4
Jack Russell	14

Heroes Tuition Centre - Homework

Name: _____

Primary 5-a-day   Platinum

The two triangles are similar.

Work out the missing length

6cm   6.5cm

cm

1.2m   1.3m

50cm
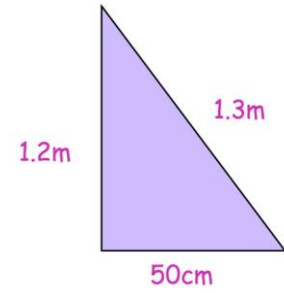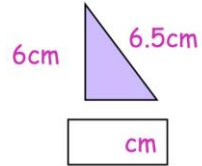
Heroes Tuition Centre - Homework

Name: _____

Primary 5-a-day   Platinum

30th October

$$0.065 = \boxed{} \%$$

$$\boxed{} \%$$

$$\frac{\boxed{}}{40} = 0.3$$

$$\boxed{}$$

42 × 31 = 1,302

Use this multiplication to complete the calculations below

42 x 62

21 x 31

42 x 32

A sequence of numbers starts at 15 and follows the rule	The number 4,129 is in the sequence.
"treble the last number and add 4" 15 49 151 457 …	Calculate the number which comes immediately before 4,129.

Heroes Tuition Centre - Homework

Name: _____   Primary 5-a-day   Platinum

31st October

$$961 \times 223$$

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

Stuffed Turkey

Serves 4

Turkey	500g
Red Onion	1
Garlic Cloves	2
Chestnut Mushrooms	150g
Spinach	140g
Chicken Stock	300ml

Dylan wants to make Stuffed Turkey for 14 people.

How much of each ingredient is needed?

Kelly has 7 pence more than Andy.
Georgia has 8 pence less than Andy.

They have £1.48 in total.

How much money does Andy have?