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# HEROES TUITION 

October Homework<br>Maths<br>Foundation

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

## Heroes Tuition Centre - Homework

Name:

| 1st October | Foundation |
| :---: | :---: |
| Simplify $4 a+2 a-a$ | Simplify $3 w+8 y-2 w+2 y$ |
| A football shirt normally costs $£ 40$. <br> A shop offers a 30\% discount. <br> What is the new price of the football shirt? |  |
| Helen is paid $£ 10$ per hour. She works $21 / 2$ hours each day. <br> In one week she worked 5 days. <br> How much did Helen earn in that week? |  |
| Work out the volume of the prism. |  |
| Rearrange $y=4 x+1$ to make $x$ the subject |  |

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Name:

| 2nd October | Foundation |
| :---: | :---: |
|  | Write down the order of rotational symmetry of the shape shown |
| Calculate the area of the triangle |  |
| $\frac{3}{5}-\frac{2}{7}$ | $\frac{3}{4}+\frac{2}{9}$ |
| Mr.Jones needs a plumber. The job should take 4 hours. <br> Which company should he hire? | Plumbers'R'us £50 call out charge £30 per hour <br> Plumb 4 u <br> $£ 40$ per hour |
| Shown is a number line. <br> What number is the arrow pointing to? |  |

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## Heroes Tuition Centre - Homework Name: <br> $\qquad$

5th October
Foundation

| Write 93.155 to the nearest whole number. | Write 93.155 to one decimal place. |
| :---: | :---: |
| Using your calculator, work out |  |
| $\frac{1}{0.2^{2}}$ |  |
|  | Calculate the area of this parallelogram. |
| Solve $5 x-4=26$ | Solve $\frac{x-1}{3}=4$ |
| Work out the size of the angle marked x . Give a reason for your answer. |  |

## Heroes Tuition Centre - Homework

Name:

| 6th October |
| :--- | :--- | :--- |
| $-7^{\circ} \mathrm{C} \quad-4^{\circ} \mathrm{C} \quad 2^{\circ} \mathrm{C} \quad 12^{\circ} \mathrm{C} \quad-3^{\circ} \mathrm{C}$ |
| What is the difference between the |
| coldest and warmest temperature? |

# Heroes Tuition Centre - Homework Name: 



Heroes Tuition Centre - Homework


Rotate triangle $\mathrm{ABC} 180^{\circ}$ about the origin


## Heroes Tuition Centre - Homework

Name:

| 9th October | Foundation |
| :---: | :---: |
| Apples cost $£ 1.00$ per kg <br> Oranges cost 24 p each <br> Tomatoes cost £2.40 per kg <br> Dara buys: <br> 0.5 kg of apples <br> 2 oranges <br> 2 kg of tomatoes | Work out the total cost |
| $\begin{aligned} & p=5 \\ & a=6 \end{aligned}$ <br> Work out the value of $3 a+8 p$ |  |
| Solve 3w = 18 | Solve $4 \mathrm{w}+2=38$ |
|  | This wheel has a radius of 21 cm . Calculate the circumference. |
| $\frac{183+892}{10.4 \times 8.75}$ <br> Write down your full calculator display. | Write your answer to 3 significant figures. |

## Heroes Tuition Centre - Homework

Name: $\qquad$

| 10th October | Foundation |
| :---: | :---: |
| Given $37 \times 102=3774$ <br> Work out $37 \times 103$ |  |
| Expand 8(a+c) | Expand $x(x+4)$ |
| Calculate the nth term $\begin{array}{llllll}  & 7 & 11 & 15 & \ldots \end{array}$ | Is 801 a term in the sequence? |
| Use your calculator to work out the value of $\frac{2.12 \times 5.2}{9.21-2.8}$ <br> Write down all the figures on your calculator display. |  |
| Calculate the area of the circle |  |

Heroes Tuition Centre - Homework
This spinner has 10 equal sections.

| Alison changes $£ 16$ into American |
| :--- |
| dollars. |
| The exchange rate is $£ 1$ to $\$ 1.40$ |
| - It has an even chance of landing |
| on an odd number. |
| - An 8 is more likely than a 4. |
| - An 8 and a 7 are equally likely. |
| - It is impossible to get a number |
| above 8. |

How many American dollars does Alison
receive?
Wive your answer in centimetres.
Write 72 as a product of primes is the length of the boat on the
In real life the length of a boat is $150 m$

## Heroes Tuition Centre - Homework

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| Foxtown |  |  |  | Write down the distance from Sandcliff to Donhampton. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 52 | Sandcliff |  |  |  |  |  |  |
| 70 | 32 | Red Island |  |  |  |  |  |
| 31 | 14 | 28 | Donhampton |  |  |  |  |
| Which two towns are the furthest apart? |  |  |  | Martin visits his friend and returns home. He has travelled 64 miles in total. <br> Where do they live? |  |  |  |
| $\frac{3}{4}+\frac{1}{12}$ |  |  |  | $\frac{5}{14} \times \frac{3}{4}$ |  |  |  |
|  |  |  |  |  |  |  |  |
| To find the contents of each empty box, multiply the two terms directly beneath it. <br> Complete the multiplication pyramid. |  |  |  | $\begin{array}{l\|l\|l\|} \hline 3 & y & 4 \\ \hline \end{array}$ |  |  |  |

## Heroes Tuition Centre - Homework

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Jim sends 14 text messages daily that cost 5p each.
He makes 3 calls each day costing 25p each.

How much does he spend altogether over five days?

What is the smallest number that is exactly divisible by 3 and 11 ?

What is the smallest number divisible by both 6 and 9 ?

Matt's age and Clark's age add up to 64. Matt is 36 years older than Clark.

How old is Clark?
$W=3 a+2 c$
Find W if $\mathrm{a}=3.5$ and $\mathrm{c}=2.2$
Find W if $\mathrm{a}=7$ and $\mathrm{c}=8$

What is the bearing of $A$ from $B$ ?

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## Heroes Tuition Centre - Homework

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15th October
Foundation
A square has a perimeter of 28 cm .
What is the area of the square?

Martin thinks of a number.
He doubles it.
He adds 11.
His answer 25.

|  |  |  | A cinema records some information <br> about the visitors they have one <br> weekend. |  |  |  | Day | Males | Females | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Saturday |  | 115 | 212 |  |  |  |  |  |  |
|  | Sunday |  |  |  |  |  |  |  |  |  |
|  | Total | 143 |  | 360 |  |  |  |  |  |  |


| Fill in all the mis |
| :--- |
| Solve |
| $\frac{x+3}{4}=8$ |


|  |  |
| :--- | :--- |
|  |  |
| Rearrange $y=2 x+1 \quad$ to make $x$ the |  |
| subject |  |
|  |  |

## Heroes Tuition Centre - Homework

| $-7 \times-2$ | $-18 \times 2$ |
| :---: | :---: |
| Find y |  |
| Serves 4 | Serves 10 <br> Chopped tomatoes $\qquad$ <br> Garlic <br> Minced beef $\qquad$ |
| The names of three quadrilaterals are below. <br> square kite parallelogram <br> Write each name in the correct position in the table below. |  Line Symmetry No Line Symmetry <br> Two pairs of <br> parallel lines   <br> No parallel lines   |
| $\begin{aligned} & \text { Factorise } \\ & y^{2}+6 y \end{aligned}$ |  |

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## Heroes Tuition Centre - Homework

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18th October


## Heroes Tuition Centre - Homework

$\qquad$
19th October
Foundation


## Heroes Tuition Centre - Homework

Name: $\qquad$

## 20th October

Foundation

Shown is a equilateral triangle.
Each side is $2 x+y$
Find an expression for the perimeter of the triangle.

Fiona is playing a game.
She throws 8 balls at a target, one at a time.
Each hit is worth 5 points.
Each miss is worth -4 points.
Fiona hits the target with 2 of the balls and misses with the rest.


How many points does Fiona score?

What is the range of the temperatures?

The ratio of girls to boys in a class is
What is the mean of the temperatures recorded? 2:3

What fraction of the class are girls?

## Heroes Tuition Centre - Homework



Reflect $A$ in the $y$-axis

| $\frac{4}{5} \times \frac{9}{2}$ |
| :--- | :--- |
| Work out the size of the angle marked y. |
| Give a reason for your answer. |

## Heroes Tuition Centre - Homework

A vintage car was bought for $£ 9,400$ Since then the value of the car has increased by 29\%

Calculate the value of the car.



Reflect the triangle in the $x$-axis

Charlene and Danielle share some money in ratio 2:7

Danielle gets $£ 25$ more than Charlie.
How much does each girl receive?

## Heroes Tuition Centre - Homework <br> $\qquad$

Name:

| 23rd October | Foundation |
| :---: | :---: |
| Find w |  |
| Here is a list of quadrilaterals. <br> kite rectangle rhombus <br> square parallelogram <br> For the following description, choose the correct name from the list. | All four sides are the same length. There are no right angles. |
| Calculate the area of the trapezium. |  |
| Rob takes a counter at random from bag 1 and a counter at random from bag 2. | Write a list of all the possible combinations of the two counters that Rob can take. |
| Is time taken to read a book discrete or continuous data? <br> Tick a box. <br> Discrete Continuous $\square$ <br> Give a reason for your answer. |  |

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## Heroes Tuition Centre - Homework

$\qquad$
25th October Foundation
Write 0.13 as a fraction

## Heroes Tuition Centre - Homework

$\qquad$
26th October

| Shown below is a glass of water. | Below are four estimates of the amount of water in the glass. Circle the most appropriate estimate. <br> $15 \mathrm{ml} \quad 1.5 \mathrm{~L} \quad 150 \mathrm{ml} \quad 15 \mathrm{~L}$ |
| :---: | :---: |
| The express bus from Dublin to Belfast takes $x$ minutes. <br> The standard bus takes 42 minutes longer. <br> Write down an expression for the time the standard bus takes. |  |
| The airplane takes half the time the express bus takes. <br> Write down an expression for the time the airplane takes. |  |
| Hannah is recording the number of letters in each word in an article. <br> These are the first ten lengths. | Work out the median. |
| The $11^{\text {th }}$ word has 4 letters. <br> Tick the box which describes what affect this will have on the mean. | The mean will <br> decrease The mean will <br> remain the same The mean will <br> increase <br> $\square$   |

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Find the range.


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William is y years old.
Eoin is four years older than William.

Write an expression for Eoin's age.

Three consecutive numbers have a sum of 21 .

What are the three numbers?

Find the range.

James drives 164km.
It takes 2 hours 30 minutes.
Work out his speed.

Write down the nth term for this sequence
$11852 \ldots \ldots$

## Heroes Tuition Centre - Homework

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| 29th October | What is the most popular method |
| :--- | :--- |
| for students to travel to school? |  |

## Heroes Tuition Centre - Homework

| 30th October | Foundation |
| :---: | :---: |
| Amie sells cars. <br> She is paid $£ 9$ an hour and is paid a £50 bonus for each car sold. <br> One week, Amie worked for 6 hours and sold 3 cars. | How much was her pay? |
|  | The next week, Amie was paid £295. <br> How many hours did she work and how many cars did she sell? <br> Hours $\qquad$ Cars $\qquad$ |
| Two fair six sided dice are rolled. <br> The numbers on the two dice are multiplied together to give a score. Complete the table |  |
| Find the probability of a score of 8 | Find the probability of a score of 8 or more |
| $\begin{array}{llllll} 14 & 17 & 20 & 23 & \ldots & \ldots \end{array}$ <br> Work out the nth term and 100th term |  |
|  |  |

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Name:


