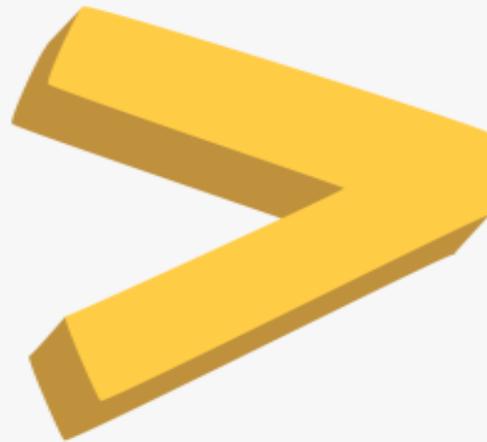


Greenfields Maths Passport



Top websites to help with maths:

www.mathletics.com

My child's Greenfields maths logins are:

website	username	password
Education City		
Purple Mash		
Timestable Rockstars		
Sumdog		

EYFS

30-50 Months

- Recites numbers in order to 10
- Knows that numbers identify how many objects are in a set
- Begins to represent numbers using fingers, marks on paper or pictures
- Sometimes matches numerals with quantity correctly
- Compares two groups of objects saying when they have the same number
- Separates a group of three or four objects in different ways, beginning to recognise the total is the same
- Shows an interest in numerals in the environment
- Realises not only objects, but anything can be counted, including steps, claps and jumps.

40-60 Months

- Recognises numbers 1-5
- Recognises some numbers of personal significance
- Counts up to 3 or 4 objects saying one number for each item
- Counts actions or objects which cannot be moved eg, counting stairs
- Counts objects to 10 and beginning to count beyond 10
- Counts out 6 objects from a larger group

- Selects the correct numerals to represent 1-5, then 1-10 objects
- Counts and number of objects up to 10
- Estimates how many objects they can see and checks by counting them
- Uses the language more and fewer to compare two sets of objects
- Finds the total number of items in two groups by counting them all
- Says the number that is one more than a given number
- Finds one more or one less from a group of up to five objects, then 10 objects
- In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting
- Records, using marks that they can interpret and explain.

Early Learning Goal:

- Can count reliably with numbers from 1-20, place them in order and say which number is one more or one less than a given number
- Using quantities and objects, they add and subtract two single digit numbers and count on or back to find the answer
- They solve problems, including doubling, halving and sharing

Exceeding:

- Estimates a number of objects and checks quantities by counting up to 20.

Year 1

Number and place value:

- Count to 100 forwards and backwards
- Read and write numbers to 100 in numbers only
- Count in 2s, 5s and 10s
- Know one more/one less/equal/ most/ least
- To read and write in words and numbers 1-20

Addition, Subtraction, Multiplication and Division:

- Know number bonds to 20
- Add and subtract 1 digit and 2 digit numbers to 20
- Know the signs + - x ÷ =
- Understand multiplication in a pictorial form

Fractions:

- Recognise and find a half
- Know a half is 2 equal parts
- Recognise and find a quarter
- Know a quarter is 4 equal parts

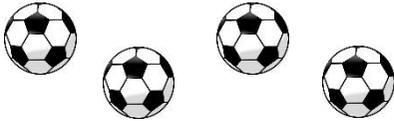
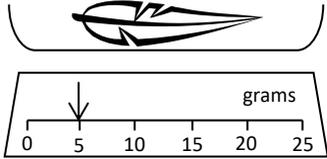
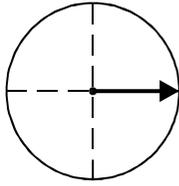
- Be able to show these in shapes and quantities

Measurement:

- Know the language of length and height (long, short, tall, short, double, half)
- Know the language for mass and weight (heavy, light, heavier than, lighter than)
- Know the language of capacity and volume (full, empty, more than, less than, half, half full, quarter full)
- Know the language of time (quicker, slower, earlier, later)
- Being to measure and record all of the above
- Recognise and know the value of coins and notes (1p, 2p, 5p, 10p, 20p, 50p, £1, £1, £5, £10, £20)
- Able to sequence events in chronological order and use the associated language (before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening)
- Know the days of the week and months of the year
- Be able to tell the time to the hour and half past, and draw hands on a clock to show this

Geometry:

- Recognise and name 2D shapes – rectangles, squares, circles and triangles
- Recognise and name 3D shapes – cuboids, cube, pyramid, sphere
- Be able to move whole, half, quarter and three quarter turns.

A: Number and Place Value		B: Fractions and Measure		C: Measure and Geometry	
1. What is the missing number? 23 24 25 26 <input type="text"/>	1:1	11. Circle half ($\frac{1}{2}$) of the balls. 	1:11	16. Which comes first in the day? a. tea b. lunch c. breakfast	1:16
2. What is the missing number? 5 10 <input type="text"/> 20 25	1:2			17. How many days are in a week? a. 4 b. 7 c. 12	1:17
3. What number is one more than 38?	1:3	12. Circle a quarter ($\frac{1}{4}$) of the sweets. 	1:12	18. Draw the hands to show: 2 o'clock	1:18
4. Pat has 3 sweets. Sam has 5. Who has the most ?	1:4				
5. Write this number in numerals: twelve	1:5	14. How heavy is the feather? 	1:14	19. What is this shape? a. square b. triangle c. circle	1:19
6. What symbol is missing? 5 <input type="text"/> 4 = 9	1:6				
7. What is the missing number? 10 = 3 + <input type="text"/>	1:7	20. The arrow points: a. up b. left c. right	1:20		
8. 14 + 5 =	1:8				
10. 2+ 2+ 2= _____ x _____ =	1:10				

Year 2

Number and place value:

- Count in steps of 2,3,5,10 from 0 or any given number forwards and backwards eg 6,8,10,12 or 13,18,23,28...
- Recognise place values in terms of tens and ones – 2 digit numbers 28 = 2 tens and 8 ones
- Be able to place numbers on a number line
- Compare and order numbers 0-100 and know symbols $<$ $>$ $=$
- Read and write numbers to 100 in words and numbers

Addition, Subtraction, Multiplication and Division:

- Know number bonds to 100
- Mentally be able to add and subtract ones and tens from a 2 digit number (one step sums)
- Add 3 1 digit numbers mentally eg, $3+5+8$
- Know that addition can be done in any order (commutative) but subtraction has to be done in order (non commutative)
- Know the relationship (inverse) between addition and subtraction
- Recall and use multiplication and division facts for 2,5 and 10 times tables
- Know odd and even numbers
- Know that multiplication can be done in any order (commutative) but division has to be done in order (non commutative)

Fractions:

- Recognise and find and name $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$, in lengths, shapes and quantities
- Write simple fractions equivalent to a half eg $\frac{5}{10}$

Measurement:

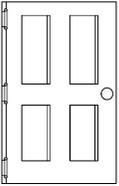
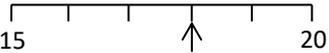
- Estimate and measure height in m , cm and mm, mass in Kg and g, temperature in degrees Celsius and capacity in L and ml to the nearest appropriate unit
- Use the symbols for £ and p and combine amounts eg. £1.42
- Find different combinations of coins that make the same amount eg $50p + 10p = 20p + 20p + 20p$
- Addition and subtraction of money and be able to give change
- Be able to tell the time to 5 minutes including quarter past and quarter to the hour, and draw the hands on the clock
- To know that there are 60 minutes in a hour, 24 hours in a day.

Geometry:

- Recognise and name 2D shapes – and know number of sides and symmetry
- Recognise and name 3D shapes, number of sides, edges and vertices
- Recognise the 2d face names on a 3D shape eg square on a cube
- Know and use the terms clockwise and anticlockwise

Statistics:

- Be able to interpret and construct pictograms, tally charts, block diagrams and simple tables.

• A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Geometry	
1. What is the missing number? 0 2 4 <input type="text"/> 8 10	2:1	11. $25 \div 5 =$	2:11	21. Estimate the height of a door. Write a, b or c.	2:17
2. What is the value of the 8 in this number? 83	2:2	12. Which are the odd numbers? 5 10 15 20	2:11	a. about 2m b. about 20cm c. about 200mm	
3. What number is labelled? 	2:3	13. What symbol is missing? $3 \square 4 = 12$	2:12	22. How many five pence (5p) coins are the same value as a fifty pence (50p) coin?	
4. Which numbers are < 15 ? 12 14 16 18	2:4	14. What symbol is missing? $40 \square 4 = 10$	2:12		23. Katie has one pound (£1). She spends twenty-five pence (25p). How much money does she have left?
5. Write this number in numerals. sixty five	2:5	15. Is this true? Write 'yes' or 'no'. $8 \div 2 = 2 \div 8$	2:13		
6. There are 30 children in a class. 15 are girls. How many are boys?	2:6	16. 5 children share 15 sweets. How many sweets does each child get?	2:14	24. Which is longest? Write a, b, or c. a. half an hour b. 40 minutes c. quarter of an hour	2:21
7. $20 - 16 =$	2:7	17. 6 teams enter a 5-a-side contest. How many players are in the contest?	2:14		
8. $34 + 10 =$	2:8	18. Write the fraction one quarter in numerals.	2:15	25. Ben arrives at the park at ten o'clock. He leaves at eleven o'clock. How many minutes does he spend at the park?	2:22
9. Is this true? Write 'yes' or 'no'. $19 + 8 = 8 + 19$	2:9	19. How many thirds are in 1 whole?	2:15		
10. Use $31 + 23 = 54$ to help find: $54 - 31 =$ <input type="text"/>	2:10	20. What is $\frac{1}{2}$ of 8?	2:16		

Year 3

Number and place value:

- Count from 0 in multiples of 4, 8, 50 and 100
- Find 10 or 100 more or less than a given number (not going below 0)
- Know the place value of a digit in a 3 digit number (hundreds, tens, ones)
- Compare and order numbers to 1000
- Read and write numbers to 100 in words and digits

Addition, Subtraction, Multiplication and Division:

- Mentally be able to add and subtract ones, tens and hundreds from a 3 digit number (one step sums)
- Use formal written methods of columnar addition and subtraction for numbers up to 3-digits
- Use inverse operations to check answers
- Solve missing number problems
- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
- Formal written methods for multiplication and division 2-digit numbers by 1-digit numbers

Fractions:

- Recognise and find and name tenths in lengths, shapes and quantities
- Add and subtract fractions with the same denominator within one whole ($\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)
- Compare and order fractions with the same denominator

Measurement:

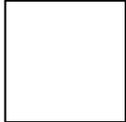
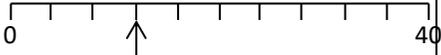
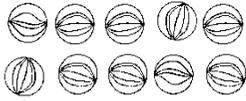
- Measure, compare, add and subtract lengths (m,cm,mm), mass (kg,g), volume/capacity (l,ml)
- Measure the perimeter of 2-D shapes
- Add and subtract amounts of money to give change , using both £ and p
- Tell and write the time from an analogue clock using Roman Numerals from I to XII, 12 hour and 24hour clocks
- Read time to the nearest minute
- Record time in seconds, minutes and hours
- Use vocabulary – o'clock, a.m./p.m., morning/afternoon/noon, midnight
- Know the number of seconds in a minute
- Know the number of days in each month, year and leap year
- Calculate durations of time for a particular event

Geometry:

- Draw 2D shapes and make 3D shapes
- Recognise angles as a property of a shape or description of a turn
- Identify right-angles and that two right angles make a half-turn, three right angles make a three quarter-turn and four right angles make a complete-turn
- Identify whether angles are greater than or less than a right angle
- Identify horizontal and vertical lines, pairs of perpendicular and parallel lines

Statistics

- Be able to interpret and present data using bar charts, pictograms and tables

: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Problem Solving	
1. What is the missing number? 0 <input type="text"/> 8 12 16	3:1	11. $36 \div 4 =$	3:10	23. How many centimetres are in one and a half metres?	3:19
2. What is the 8 worth in this number? 183	3:2	12. $8 \times 8 =$	3:10		
3. Write this number in numerals. two hundred and fifty	3:3	13. Use $12 \times 3 = 36$ to solve: $24 \times 3 =$	3:11	22. The sides of a square are 4cm. What is the perimeter of the square? 	3:20
4. What number is labelled? 	3:4	14. What is the missing number? $7 \times \text{input} = 82 - 12$	3:12		
5. Make the largest number possible using the digits 2 7 5.	3:5	15. What is the missing number? 0.7 0.8 0.9 <input type="text"/> 1.1	3:13	23. I had £1. I bought 2 cartons of drink and got 30p change. How much did each carton of drink cost? 	3:21
6. $890 + 10 =$	3:6	16. Circle $\frac{2}{10}$ of the marbles. 	3:14		
7. $436 - 123 =$	3:7	17. What is $\frac{1}{3}$ of 12?	3:15	24. Draw the hands to show five minutes past four o'clock 	3:22
8. Circle the best estimate to $59 + 39$: 80 90 100 110	3:8	18. $\frac{2}{6} = \frac{?}{3}$ 	3:16		
9. One orange costs nineteen pence. How much will three oranges cost?	3:9	19. Add the fractions. $\frac{2}{5} + \frac{1}{5}$	3:17	25. How many seconds are in two minutes?	3:24
10. What is the missing number? <input type="text"/> $\div 19 = 13$	3:9	20. Write the largest fraction. $\frac{1}{5}$ $\frac{1}{6}$ $\frac{1}{4}$ $\frac{1}{2}$	3:18		

Year 4

Number and place value:

- Count from 0 in multiples of 6,7,9,25,1000
- Find 1000 more or less than a given number
- Count backwards through 0 to include negative numbers
- Know the place value of a digit in a 4 digit number (thousands, hundreds, tens, ones)
- Compare and order numbers beyond 1000
- Read and write numbers to 1000 in words and digits
- Round any number to the nearest 10,100 or 1000
- Read Roman Numerals to 100 (I,V, X, L and C)

Addition, Subtraction, Multiplication and Division:

- Formally be able to add and subtract 4 digit numbers with written method
- Solve addition and subtraction 2 step problems
- To recall multiplication and division facts up to 12×12
- Use known number and place value facts to help solve multiplication calculations mentally eg $50 \times 5 = 5 \times 5 \times 10$
- Recognise and use factor pairs eg $5 \times 4 = 4 \times 5$
- Use formal methods to solve 3 digit number \times 1 digit number

Fractions:

- Recognise families of common equivalent fractions eg $\frac{3}{6}$, $\frac{5}{10}$, $\frac{10}{20}$, $\frac{2}{3}$ and $\frac{6}{9}$, $\frac{1}{4}$, $\frac{3}{12}$ etc

- Count up and down in hundredths
- Recognise decimal equivalents of tenths and hundredths, quarts, half, three quarters
- Divide a 2 digit number by 10 or 100
- Round decimals with one decimal place to the nearest whole number
- Compare decimal numbers with 2 dp eg $0.68 > 0.34$

Measurement:

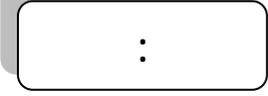
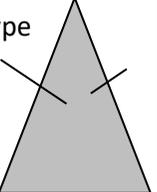
- Convert between measurements (m,cm,mm), mass (kg,g), volume/capacity (l,ml), hour to minute
- Measure and calculate the perimeter of 2-D shapes in cm and m
- Find the area of shapes by counting squares
- Tell and write the time from an analogue clock, 12 hour and 24hour clocks and convert between the two

Geometry:

- Classify 2D shapes and 3D shapes based on properties and sizes
- Identify acute and obtuse angles and order including right angles
- Identify lines of symmetry in 2D shapes
- Describe position on a grid using xy axis as coordinates
- Describe the movement of a shape using translation (left, right, up, down)
- Plot coordinates on a grid to draw a given shape

Statistics

- Be able to interpret and present discrete and continuous data using bar charts, pictograms and time graphs

• A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Geometry	
1. What is the missing number? 18 <input type="text"/> 36 45 54	4:1	11. $42 \div 6 =$	4:9	21. How many metres (m) are in 3.5 kilometres (km)?	4:19
2. What is the missing number? 49 56 63 <input type="text"/> 77	4:1	12. Two factors of 28 add up to 9. What are they?	4:10	22. The sides of a rectangle are 2m and 6m. What is the perimeter of the rectangle? 	4:20
3. What is 1,000 more than 150?	4:2	13. $234 \times 5 =$	4:11		
4. Round this number to the nearest 10: 1,543	4:2	14. In a class of 18 there are 2 girls for every 1 boy. How many girls are there?	4:12	23. About how much is in this 1 litre jug? Write a, b or c. a. about 250ml b. about 550ml c. about 750ml 	4:21
5. What is $3 - 5$?	4:3	15. $\frac{1}{3} = \frac{?}{15}$ 	4:13		
6. What is the value of the 2 in this number? 2,789	4:4	16. What is the missing number? 1.72 1.73 1.74 <input type="text"/> 1.76 $\frac{3}{13} + \frac{6}{13}$	4:14	24. How would 2 pm be shown on a 24 hour digital clock? 	4:22
7. Write the number 22 in Roman numerals.	4:5	17. $\frac{1}{4}$ as a decimal number.	4:15		
8. $4,528 - 216 =$	4:6	18. Write $\frac{1}{4}$ as a decimal number.	4:16	25. What is the special name for this type of triangle? 	4:23
9. Write the sum to check $239 + 154 = 393$: $393 - \square = \square$	4:7	19. $23 \div 100 =$	4:17		
10. I have £1. I spend 34p then 45p. How much do I have left?	4:8	20. Round 3.4 to the nearest whole number.	4:18		

Year 5

Number and place value:

- Read write and order numbers to 1,000,000 and know the value of each digit
- Count backwards in powers of 10
- Interpret negative numbers in context
- Round any number to the nearest 10, 100, 1000, 10,000, 100,000
- Read Roman Numerals to 1000 (I,V, X, L, C and M)

Addition, Subtraction, Multiplication and Division:

- Formally be able to add and subtract numbers with written method
- Solve multistep problems and decide which operation to use
- Recognise and use factor pairs, multiples and factors and common factors
- Know and use the vocabulary prime numbers, prime factors, composite numbers
- Know all prime numbers to 100 and be able to recall all to 19
- Use formal methods to solve 4 digit number x 2 digit numbers
- Divide numbers up to 4 digits by 1 digit and interpret the remainder
- Multiply and divide whole numbers and decimals by 10, 100, 1000
- Recognise and use square numbers and cubed numbers and know and use the symbols

Fractions:

- Compare and order fractions whose denominators are all multiples of the same number eg $\frac{2}{3}$, $\frac{5}{6}$, $\frac{3}{9}$
- Know equivalent fractions of a given fraction
- Recognise mixed numbers , improper fractions and be able to convert one form to the other

- Add and subtract all fractions
- Multiply fractions by whole numbers
- Read and write decimal numbers as fractions eg $0.71 = \frac{71}{100}$
- Recognise and use 1000ths $\frac{1}{1000}$
- Round 2dp numbers to the nearest whole number or to 1dp
- Read, write, order and compare numbers with 3 dp
- Recognise the % symbol and know it relates to parts out of 100
- To know % and dp equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$

Measurement:

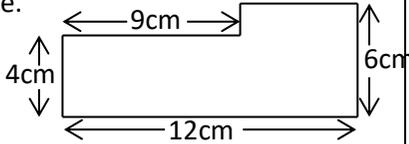
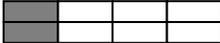
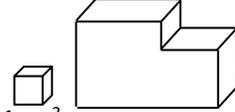
- Convert between metric measures (m,cm,mm), mass (kg,g), volume/capacity (l,ml)
- Know and use the approximate equivalent between metric and imperial units
- Measure and calculate the area and perimeter of composite shapes
- Estimate volume

Geometry:

- Identify a 3D shape from their net
- Identify acute and obtuse and reflex angles and measure them accurately
- Identifying angles at a given point – whole turn 360, half 180, quarter 90 degrees
- Identifying missing angles based on knowing properties of shapes
- Distinguish between regular and irregular shapes
- Describe the movement of a shape using translation and reflection

Statistics

- Be able to interpret and present discrete and continuous data using bar charts, pictograms, line graphs and time graphs
- Interpret information from a table including timetable

• A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure and Problem Solving	
1. What is the value of the 4 in this number? 1,348,567	5:1	11. Which is a common factor of 12 and 20? 3 4 5 6 10	5:8	21. Megan and Joe are sharing a pizza. Megan eats 25% of the pizza. Joe eats $\frac{1}{2}$ of the pizza. What fraction of the pizza is left?	5:19
2. Write eight hundred thousand, three hundred and seven in digits.	5:1	12. Give two prime numbers between 1 and 10.	5:9		
3. Round 247,599 to the nearest thousand .	5:2	13. 628 x 12	5:10	22. How many centimetres are there in 3.7 metres ?	5:20
4. What is the missing number? 837 937 <input type="text"/> 1,137	5:2	14. 1,278 ÷ 100	5:11		
5. What temperature is 15 degrees less than 6 degrees Celsius?	5:3	15. What is 7² ?	5:12	23. Calculate the perimeter of this shape. 	5:21
6. What number is represented by these Roman Numerals? DXXX	5:4	16. $\frac{3}{1} + \frac{1}{2} =$	5:13		
7. 12,498 – 3,149 =	5:5	17. Find an equivalent fraction of $\frac{1}{1}$. 	5:14	24. Estimate the volume of this shape. Write a, b or c. a. 6 cm ³ . b. 26 cm ³ . c. 46 cm ³ . 	5:22
8. 24,829 + 83,592 =	5:5	18. Write 17 as a mixed number . $\frac{\quad}{6}$	5:15		
9. Complete this sum without written working. 15,200 – 4,150 =	5:6	19. $\frac{2}{7} \times 21 =$	5:16	25. Sarah gets on a train at 2.30pm . The train journey lasts 110 minutes . What time does Sarah arrive at her destination?	5:23
10. I buy 2 CDs costing £8.45 each. How much change do I get from £20?	5:7	20. Round 2.37 to 1 decimal place.	5:17		

Year 6

Number and place value:

- Read write and order numbers to 10,000,000 and know the value of each digit
- Use negative numbers in context and calculate across 0
- Round any number to the nearest given destination

Addition, Subtraction, Multiplication and Division:

- Carry out any calculation involving the four operations using appropriate strategies
- Know how to present an answer
- Divide numbers using formal methods for 4 digit by 2 digit and interpret remainders
- Identify common factors, common multiples and prime numbers
- To be able to solve multi step problems using chosen operations

Fractions:

- Use common factors to simplify fractions
- Compare and order fractions less than 1
- Add and subtract all fractions with different dominators and mixed numbers in the same sum
- Multiply pairs of fractions and transfer to the simplest form
- Divide fractions by whole numbers
- Calculate decimal numbers to equivalent fractions eg $0.71 = 71/100$
- Multiply decimal numbers by whole numbers

Measurement:

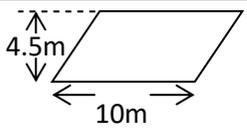
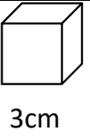
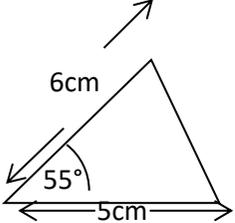
- Know and use the approximate equivalent between metric and imperial units and use it to solve problems
- Measure and calculate the area and perimeter of composite shapes using formula
- Calculate the area of parallelograms and triangles
- Compare the volume of cubes and cuboids

Geometry:

- Draw 2D shapes to given dimensions and angles
- Build 3D shapes including making the nets
- Find any angle in any triangle, quadrilateral or regular polygon
- Illustrate and name parts of a circle: radius, diameter, circumference
- To know the diameter of a circle is twice the radius
- Recognise angles where they meet at a point, are on a straight line or are vertically opposite, and find missing angles
- Describe positions on all 4 quadrants
- Draw and translate shapes using coordinate instructions and reflect them across axis

Statistics:

- To be able to construct and interpret a pie chart
- Can calculate the mean as an average

A: Place Value, +, -, Multiply and Divide		B: Fractions, Ratio, Proportion and Algebra		C: Measure and Geometry	
1. Write nine million, seven thousand, three hundred and eight in digits.	6:1	11. Which is the largest fraction? $\frac{2}{3}$, $\frac{5}{6}$ or $\frac{7}{12}$	6:7	21. How many miles are approximately equal to 4 kilometres ?	6:18
2. What is the value of the 8 in this number? 1,384,721	6:1	12. $\frac{5}{6} + \frac{1}{9} =$	6:8	22. Give the length and width of two rectangles that have an area of 20m ² .	6:20
3. Round 7.186 to 2 decimal places.	6:1	13. Simplify your answer. $\frac{2}{3} \times \frac{1}{2} =$	6:9	24. Find the area of this parallelogram . 	6:21
4. What is the largest possible crowd? Attendance: 25,456 (to the nearest thousand)	6:2	14. 0.5738 x 1000	6:10	24. Calculate the volume of a cube with a 3cm side length. 	6:22
5. 1,482 x 15	6:3	15. 2.15 x 3	6:11	25. Draw this triangle accurately below: Use a ruler and a protractor. 	6:23
6. 392 ÷ 14	6:3	16. Write this fraction as a decimal and a percentage . $\frac{1}{5}$	6:12		
7. Which is a common multiple of 4 and 6? 2 3 8 12 18	6:4	17. Find 35% of 180.	6:13		
8. Which factor of 25 is also a prime number ?	6:4	18. In a class of 25 pupils, $\frac{3}{5}$ are boys. How many girls are there?	6:14		
9. 68 - 24 ÷ 2	6:5	19. How much will a 5 minute call cost? Call charge: 30p + 7p per minute.	6:15		
10. I have £10. I buy 2 coffees at £2.89 each. How much do I have left?	6:6	20. What is the 10th term of this sequence? 3, 7, 11, 15, 19, ...	6:16		

