



W.C. 27th April

<https://www.bbc.co.uk/bitesize/tags/zncsscw/year-6-lessons/1>

Maths

Dear parents/carers, there is no expectation to complete all the work or print worksheets off - children can work on paper if they want to write it down.
Thanks for all your hard work.

Also there is work on **StudyLadder** that we know the children love to use. You can email us on s83year6@st-annes.solihull.sch.uk for the password if your child has forgotten their login.

Purple Mash Look out for work set for 27-4-20: Problems involving decimals and rounding numbers (consolidation of work done last week)

29-4-20: Long multiplication and prime numbers

Game - Funky Platform

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After watching the videos and having a go at the practice activities, have a go at these activities. Depending on your confidence choose Mild, Medium or Spicy.

Extensions – You may wish to deepen your learning by looking at the Collins Worksheets provided by the BBC too.



Monday

<https://www.bbc.co.uk/bitesize/articles/z6ynscw>

Multistep addition and subtraction problems

Learn how to complete multi-step addition and subtraction calculations.

An **operation** is a mathematical process. The most common operations are add, subtract, multiply and divide.

One-step problems require one operation to solve the problem. **Two-step** and **multi-step** maths problems require more than one operation to find an answer.

Often, you will have to use the answer to the first step using one operation to work out the rest of the problem.

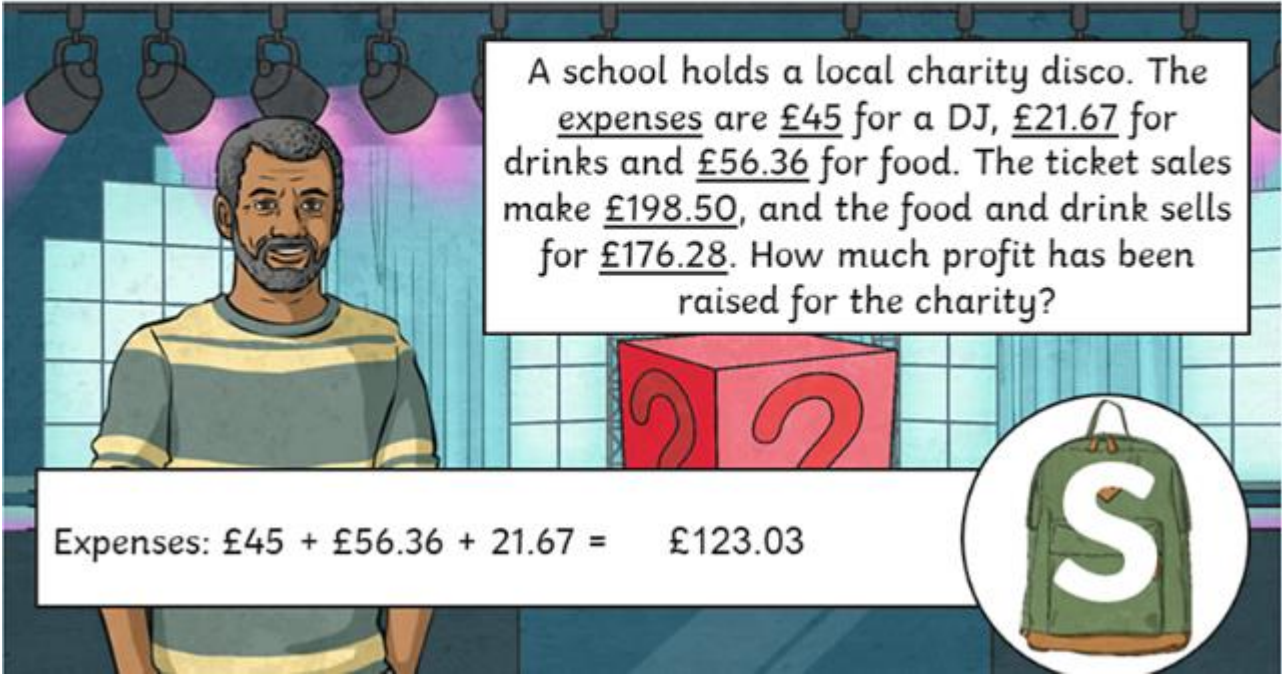
Now, let's take a look at some multistep addition and subtraction word problems in the slideshows.

Solving Problems

Welcome to Open the Box and here is your host, Patrick.



Solving Problems



A school holds a local charity disco. The expenses are £45 for a DJ, £21.67 for drinks and £56.36 for food. The ticket sales make £198.50, and the food and drink sells for £176.28. How much profit has been raised for the charity?

Expenses: $£45 + £56.36 + 21.67 =$ $£123.03$



A family live 265 miles away from their grandparents, who they visit over the holidays. While away, they visit friends who live $37\frac{1}{2}$ miles from where they are staying, and they drive another 18 miles to go shopping. Including a return trip, how many miles will they travel altogether?



Mild

1. Alice is trying to complete a sticker book. It needs 3,500 stickers overall. She has 1,340 in the book and a further 1,872 ready to stick in. How many more stickers will she need?
2. A supermarket has 12,840 loaves of bread at the start of the day. During the day, 8,570 loaves are sold and a further 20,320 loaves are delivered. How many loaves of bread are there at the end of the day?
3. In a garden centre, rose seeds cost £1.38, lily seeds cost £1.15 and daffodil seeds cost 85p. Jan buys a packet of rose seeds and a packet of daffodil seeds. How much change does she get from a £5 note?
4. Barry has 50 litres of fuel in his car and his petrol tank is full. On a journey to Wales, he uses 30 litres of fuel. On a journey to the shop, he used 1,250ml of fuel. How much fuel will he have to put back in to fill the tank?
5. On a school trip 1,279 people visit a museum. There are 1,020 children and 45 teachers. How many parents are there?

Complete the models.

a)



b)

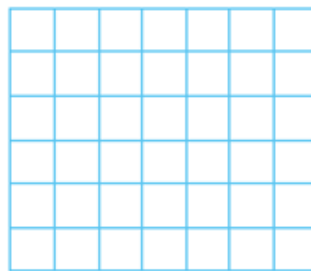
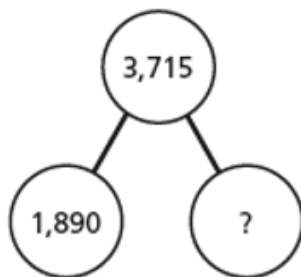
23,000		
12,365	4,017	

Medium

1. In a week Josh saves £5.75. On Monday, he has £2.55 and on Wednesday his mum gives him 75p. How much does he save the rest of the week?
2. Charles has 5230 comics. He lends 3265 to Jim and 899 to Ryan. How many does he have left?
3. A car costs £206,399. In the sale, it has £96,250 off. Harry buys the car and a new Rolex watch that costs £12,599. How much does he spend in total?
4. Bristol zoo recorded its visitors over a four week period. In the first week there were 630,242 visitors. In the second, 439,242 people visited the zoo. In the third and fourth week, a combined total of 1,320,942 people visited the zoo. How many people visited the zoo in the four week period?
5. At the start of a football match there were 466,209 people watching on TV. After kick off, another 316,819 viewers tuned in to watch the game. However, at half time 181,201 viewers stopped watching the match. How many viewers were still watching the match after half time?

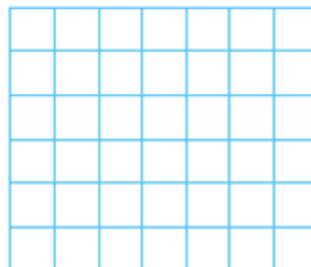
Calculate the missing numbers. Show your method.

a)



b)

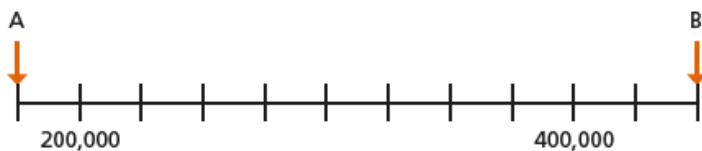
?		
2,354	750	1,500



Spicy

1. A shop had 467,290 items. It through away 109,510 of these items and bought 266,817 new ones, how many items did the store now have?
2. Filbert was playing a video game and had a score of 200,000. In a hard part of the game he lost 106,848 points. If he got 329,404 more points in the next level, how many points would he have?
3. Jae had £467,330. He went shopping and spent £126,309. If he got another £366,892 for his allowance, how much money does he have now?
4. Amy had four hundred and thirty five thousand music files and one hundred and twenty six thousand and thirty two video files on her flash drive. If she deleted eight hundred and thirty eight of the files. How many files were still on her flash drive?
5. The school ordered 1,230,868 fish fingers and 2,416,092 chips for a very hungry school. But, if 832,909 chips and 355,712 fish fingers did not get eaten. How many extra fish fingers and chips did the school end up with?

What is the difference between A and B?



The difference between A and B is



Use each digit card once to complete the calculation.

$$\square\square\square - \square\square\square = \square$$

Try different combinations of digits to get an answer that is as close to 500 as possible.

I am thinking of a number. I add 200,000, then subtract half a million, then add a quarter of a million. Then I round to the nearest 10, which is two million and fifty.



What number could Alex have been thinking of to start with?

Alex could have been thinking of

Short and long multiplication

Mild

4b. Chara solved the calculation below and thinks the answer is 3,254.

8,126 x 4

Th	H	T	O
			
			
			
			

Complete the calculation using a formal method to identify her mistake.

5b. Work out the missing numbers. Use the place value chart to help you.

Th	H	T	O
			
			

	7	0	8	
x				2
	4		6	8
		1		



PS

Complete the multiplications.

a)

		1	2	3	5
	x			5	3

b)

		4	0	3	6
	x			2	4

c)

		6	9	7	8
	x			7	6

Medium

7a. Cassie solved the calculation below and thinks the answer is 10,808.

$$5,207 \times 4$$

Th	H	T	O
			

Complete the calculation using a formal method to identify her mistake.

7b. Sanjay solved the calculation below and thinks the answer is 72,134.

$$8,126 \times 9$$

Th	H	T	O
			

Complete the calculation using a formal method to identify his mistake.

Write the correct multiplications to complete the calculations.

$$1,247 \times 37$$

$$2,031 \times 29$$

$$2,413 \times 23$$

x					
	7	2	3	9	
4	8	2	6	0	

x					
	8	7	2	9	
3	7	4	1	0	

x					
	1	8	2	7	9
4	0	6	2	0	

Spicy

6a. Nina says,



I can use four thousand, two hundred and fifteen multiplied by twenty to help me find the answer to $4,215 \times 18$.

Do you agree with Nina? Convince me.

6b. Joe says,



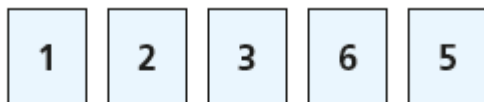
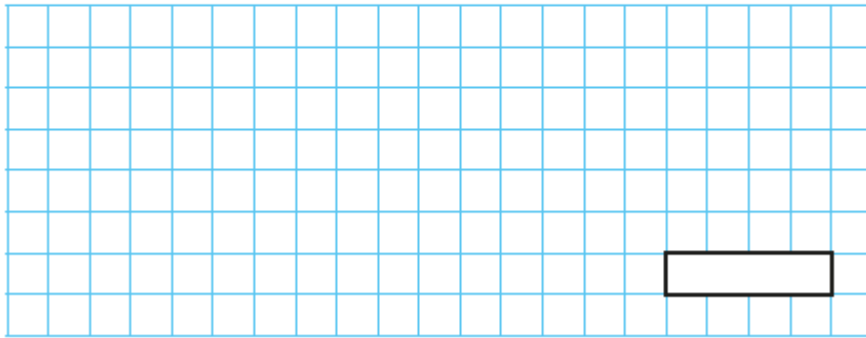
I can use six thousand, seven hundred and twenty nine multiplied by twenty to help me find the answer to $6,729 \times 10$.

Do you agree with Joe? Convince me.

A car park has 230 rows of 17 spaces.

There are 1,250 cars already parked.

How many empty spaces are there?



What is the greatest product you can make that is also an odd number?

Wednesday

Identify common factors, common multiples and prime numbers

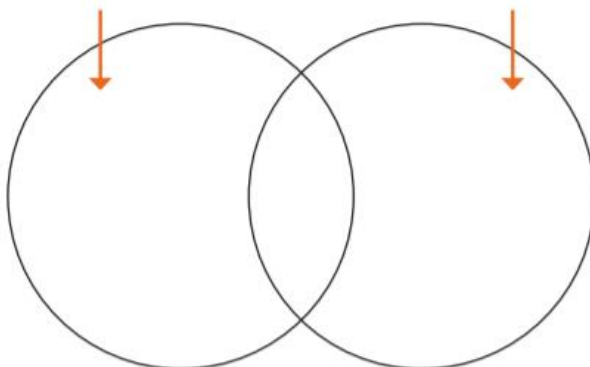
Mild

Write the numbers in the sorting diagram.

1 2 3 4 5 6 8 12 15 24

factors of 15

factors of 24



Complete the sentence.

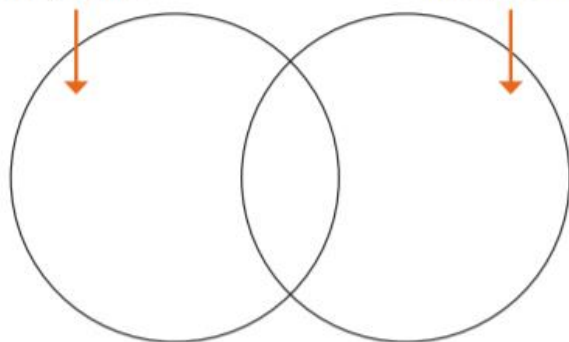
The common factors of 15 and 24 are _____

a) Write the numbers in the sorting diagram.

25 30 16 20 24 60 75 40

multiples of 5

multiples of 4



b) Write all the common multiples of 4 and 5 from the list.

c) Look at the common multiples of 4 and 5 from part b).

What do you notice?

Describe how to find more common multiples to add to this list.

Would you ever run out of common multiples?

Circle the prime numbers in each list.

a) 1 2 3 4 5 6 7

b) 17 22 9 36 21 35 23

c) 10 18 38 74 92 2 14

Medium

Find the common factors of each pair of numbers.

a) 12 and 20

b) 16 and 25

c) 20 and 50

d) 20 and 60

a) Complete the table.

Factor pairs of 50	Factor pairs of 75	Factor pairs of 100
1×50 2×25 5×10	$1 \times$	

b) What are the common factors of 50, 75 and 100?

a) Continue the lists of multiples.

Multiples of 5

5, 10, 15, , , , , , ,
, , , ,

Multiples of 7

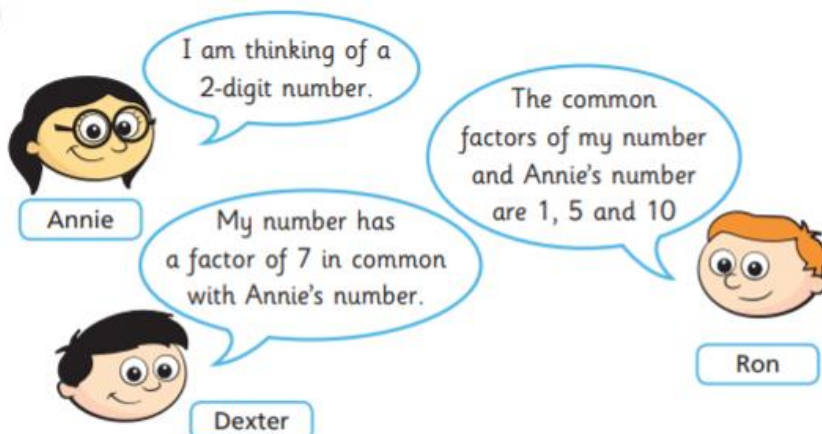
7, 14, 21, , , , , , ,
, , , ,

b) What are the common multiples of 5 and 7?

Write ten numbers in the sorting diagram. Each section must have at least one number.

	Even	Not even
Prime		
Not prime		

Spicy



What number is Annie thinking of?

Whitney is trying to simplify these fractions.

$$\frac{18}{46}$$

$$\frac{24}{81}$$

$$\frac{40}{100}$$

$$\frac{121}{132}$$

I can use common factors to work out how to simplify these fractions.



Show how Whitney's method could work.

Rita has 2 grandchildren in different years at school.

On Rita's 90th birthday she says to her grandchildren,

"My age is a multiple of both your ages today."

How old could Rita's grandchildren be?

Describe two different solutions.

I think 87 is a prime number because it is odd and most numbers that end in 7 are prime.

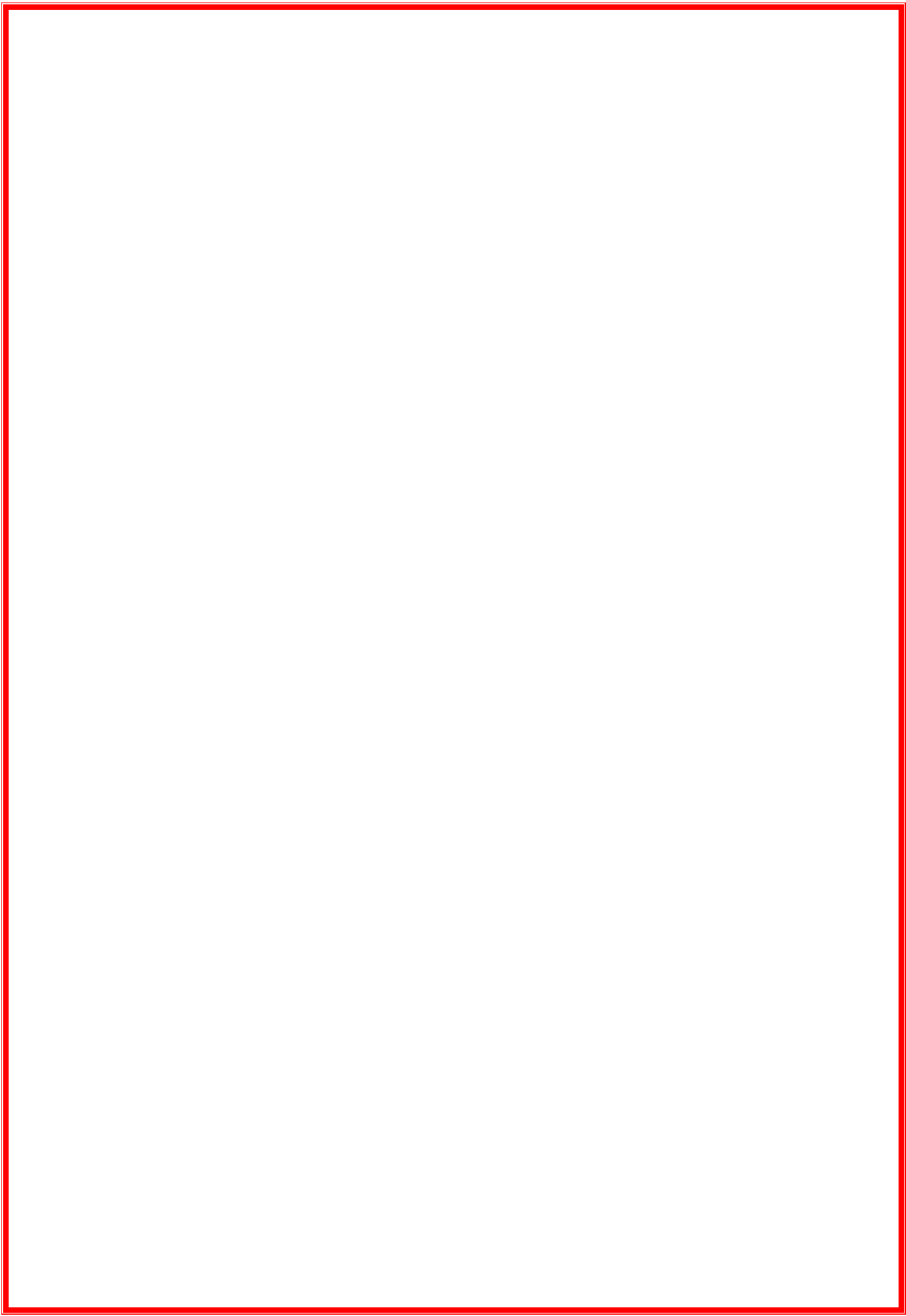


Do you agree with Rosie?

Test whether or not 87 is a prime number and show your reasoning.

Thursday

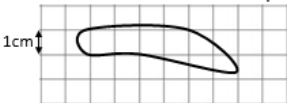
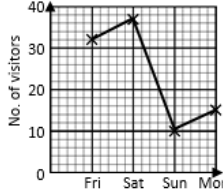
Challenge Day!



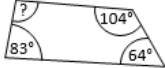
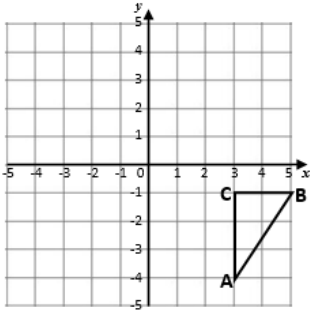
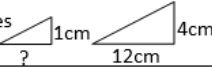
Friday

Key Skills

Mild

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions		C: Measure, Geometry and Statistics	
1. What is the value of the 2 in this number? 2,934,765	5:1	11. Write all of the factors of 18.	5:8	21. If 1 kilogram is approximately 2.2 pounds, about how many kilograms are equal to 8.8 pounds?	5:20
2. Put these in order, smallest first: 212,285 32,956 110,000 85,253	5:1	12. Which of the following are prime numbers ? 3 4 7 15 18	5:9		
3. Round 163,824 to the nearest ten thousand .	5:2	13. 1,016 x 8	5:10	22. Estimate the area of this shape:	5:21
4. What is the missing number? 117,250 107,250 87,250	5:2	14. 9.2 ÷ 100	5:11		
5. Put these in order, smallest first: -3, 1, -5, 0, 4, -2	5:3	15. What is 3³ ?	5:12	23. Reflect the shape in the mirror line.	5:28
6. What year is represented by these Roman Numerals? MCMXCV	5:4	16. Put these in order, smallest first: $\frac{3}{5}$ $\frac{7}{10}$ $\frac{8}{15}$	5:13		
7. 112,498 - 48,745 =	5:5	17. Find an equivalent fraction of $\frac{2}{4}$.	5:14	24. Customers over a long weekend: How many customers were there on the busiest day?	5:29
8. 34,857 + 79,384 =	5:5	18. Write the answer as a mixed number . $\frac{7}{8} + \frac{11}{8}$	5:15		
9. Complete this sum without written working. 15,200 - 2,050 =	5:6	19. $\frac{2}{9} \times 27 =$	5:16	25. How many customers were there in total over the long weekend?	5:29
10. The temp. was -4°C. It rose by 9°C, then dropped by 4°C. What is it now?	5:7	20. Write 0.8 as a fraction.	5:17		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	

Medium and Spicy

A: Place Value, Add, Subtract, Multiply and Divide		B: Fractions, Ratio, Proportion and Algebra		C: Geometry, Position and Direction	
1. Write in words: 2,134,005	6:1	11. Simplify this fraction fully: $\frac{9}{36}$	6:7	21. Find the missing angle. 	6:24
2. What is the value of the 3 in this number? 3,954,682	6:1	12. $1\frac{5}{6} + \frac{1}{4} =$	6:8	22. On the circle draw a line to label the diameter . 	6:25
3. Round 8,523,912 to the nearest ten thousand .	6:1	13. $\frac{2}{8} \div 4 =$	6:9	23. Find the value of a . 	6:26
4. The temperature rises from -7°C to 9°C. How many degrees has it risen?	6:2	14. What is the value of the 8 in this number: 64.381	6:10	24. What are the co-ordinates of A ? 	6:27
5. 2,355 x 16	6:3	15. Give your answer as a decimal: 43.5 ÷ 6	6:11	25. Reflect triangle ABC in the x-axis .	6:28
6. What is the remainder? 3,300 ÷ 19	6:3	16. Write this fraction as a decimal and a percentage . $\frac{3}{5}$	6:12		
7. Write two common factors of 30 and 45.	6:4	17. Find 20% of 180.	6:13		
8. There are four prime numbers between 10 and 20. What are they?	6:4	18. These shapes are similar . 	6:14		
9. 85 - 8 x 7	6:5	19. 1 bag has s sweets. I get 2 bags. Write an expression for no. of sweets.	6:15		
10. What is my change if I buy as many £5.98 footballs as I can with £30?	6:6	20. Which two numbers add together to make 25 and have a difference of 1?	6:17		
Total (A)		Total (B)		Total (C)	
Test Total (A+B+C)		R (0-9)	Y (10-19)	G (20-25)	