


# Y5 Maths

## What they need to know...

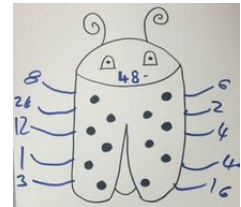
By Year 5, the children are expected to know all of their times tables. They need to be able to use the terms *factor pair* (a pair of numbers that multiply together to make another number, e.g. 4 and 5 are a factor pair of 20) and *multiple* (a multiple of a number is a number in its times table, e.g. 12 is a multiple of 3). Number arrays  can help children visualise these properties. They can also support understanding of both *square* and *prime* numbers (for instance, can you make an array for the number 13? Why not?) Children should be able to use their multiplication and division facts to multiply or divide multiples of 10 (if I know  $6 \times 7 = 42$ , then  $6 \times 70 = 420$  or  $6 \times 0.7 = 4.2$  or  $6 \times 3.5 = 21$  and so on). For information regarding the written multiplication and division methods that the children need to use, please see our school calculation policy.

## Activities & Games!

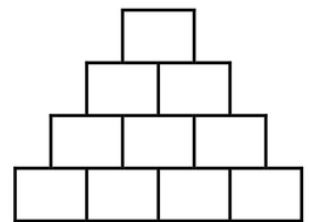
★ I am thinking of two 2-digit numbers. Both of the numbers have a digit total of 6. Their common factors are 1, 2, 3, 4, 6, & 12. What are the numbers?

Can you write a similar problem for someone in your family? Perhaps they can write one for you too!

★ Choose a 2 digit number and write it inside the body of a bug you have drawn. Then look for all of the factors that you would multiply to make your number. These will become your legs and antennae of your bug. You could then challenge yourself by choosing a larger number or looking for square factors (when a number is multiplied by itself e.g.  $4 \times 4 = 16$ ).



★★ Choose two 2-digit numbers and two 1-digit numbers and put them in any order along the bottom of your pyramid. Multiply the two numbers that are next to each other and put the answer in the space above. Keep going until your pyramid is full. How many different totals can you make in the final square by changing the order of the bottom numbers? What is the largest/smallest number you can make?



★★ Take the number 6,469,693,230 and divide it by the first ten prime numbers and you'll find the most beautiful, most magic of all numbers. What is it?

★★★ Choose any number. This is going to be your particular number for this proof. Square your chosen number. Subtract your starting number. Is the number you're left with odd or even? Create a model or a picture of your calculation, using your chosen number, and examine this model carefully. Can you use this one model to prove that your result is always true and not just true for the particular number that you chose to start with?

★ Jack is thinking of a 3-digit number. When he multiplies his number by 100, the ten thousands and hundreds digits are the same. The sum of the digits is 10. What number could Jack be thinking of?

★★ Here are the answers to some problems:

Can you write at least two questions for each answer, involving multiplying or dividing by 10, 100 or 1000?

5700

405

397

6,203

# Going deeper...

1 2 3 4 5 6

## Curious Number

Can you order the digits 1,2,3,4,5 and 6 to make a number which is divisible by 6 ...  
... so that when the final or last digit is removed it becomes a 5-digit number divisible by 5 ?  
And when the final digit is removed again, it becomes a 4-digit number divisible by 4 ?  
And when the final digit is removed again, it becomes a 3-digit number divisible by 3 ?  
And when the final digit is removed again, it becomes a 2-digit number divisible by 2, then finally a 1-digit number divisible by 1 ?

Use the following questions to help you solve this:

What makes a number divisible by one/two/three/four/five/six ...?

Where do the even numbers have to go?

So where do the odd numbers have to go?

Where does the five have to go?

## My Maths

Use our school login (Username: **coleridge1**, Password: **success74**), and then your own login details to access activities related to our current topic on the MyMaths website. You can also have a look to see if there are some other fun games you would like to play.

## Wonderful websites

[Factors and Multiples](#)

[Remainders](#)

[Methods in Multiplying Madness](#)

[Coconut Multiples](#)

[Hit the Button \(to practise times tables and division facts\)](#)

Whilst it can be very tempting to encourage your child to have a go at the more challenging activities, it is far better to work with them at a level they feel confident with. Significant and regular practise of even the most basic skills outlined in this document will lead to a much deeper understanding and greater proficiency, and ultimately a much more pleasant 'homework' experience for you and your child!