

Kayaks Maths for

29th June

30th June

1st July

2nd July

3rd July

There is one page for each day

Maths 29.6.20

True or False? – Can you prove it?

These four calculations have the same answer.		These four calculations have the same answer.	
$8 + 4 + 5$	$4 + 5 + 8$	$7 - 3 - 2$	$2 - 3 - 7$
$5 + 4 + 8$	$4 + 8 + 5$	$3 - 2 - 7$	$7 - 2 - 3$

Recap adding and subtracting two digit numbers (with regrouping).

The first for each operation (+ and -) has been done for you.

Sum +	partition the tens	partition the ones	add them to get the final answer
$17 + 18$	$10 + 10 = 20$	$7 + 8 = 15$	$20 + 15 = 35$
$43 + 27$			
$56 + 39$			
Sum -	partition the smallest number	subtract the tens	subtract the units
$25 - 17$	$17 =$ $10 + 7$	$25 - 10 = 15$	$15 - 7 = 8$
$71 - 36$			
$94 - 65$			

Use understanding of place value to add and subtract three digit numbers (with regrouping).

When working with larger numbers, a similar process like the one above can be used, except this time we will need to partition the **hundreds**, as well as the **tens** and **units**. Again, for addition number sentences, this is straightforward. See the first example below and have a go at the others yourself.

Sum +	Partition the hundreds	partition the tens	partition the ones	add them to get the final answer
$165 + 146$	$100 + 100 = 200$	$60 + 40 = 100$	$5 + 6 = 11$	$200 + 100 + 11 = 311$
$227 + 208$				
$314 + 239$				
$442 + 359$				

In subtraction, as before, **only** the second number (the smallest number) is partitioned. This time, the smallest number is split up into - **hundreds**, **tens** and **units**. For example: $286 - 147 =$

$$100 + 40 + 7$$

$$286 - 100 = 186$$

$$186 - 40 = 146$$

$$146 - 7 = 139$$

Have a go at these. The first one has been done for you.

Sum -	partition the smallest number	subtract the hundreds	subtract the tens	subtract the units
$225 - 117$	$117 =$ $100 + 10 + 7$	$225 - 100 = 125$	$125 - 10 = 115$	$115 - 7 = 108$
$341 - 234$				
$456 - 138$				
$570 - 322$				
$738 - 449$				

Maths 30.6.20

Match the repeated addition problem with the correct multiplication problem by drawing a line.

$3 \times 5 =$

$10 + 10 + 10$

$12 \times 2 =$

$5 + 5 + 5 + 5 + 5 + 5 + 5 + 5$

$6 \times 10 =$

$2 + 2 + 2 + 2 + 2 + 2 + 2$

$9 \times 5 =$

$5 + 5 + 5$

$7 \times 2 =$

$10 + 10 + 10 + 10 + 10 + 10$

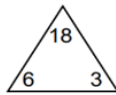
$3 \times 10 =$

$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$

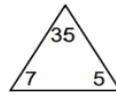
Write the addition problem 6×5 and answer it = _____ = _____

Write the multiplication problem $2 + 2 + 2 + 2 + 2$ and answer it = _____ = _____

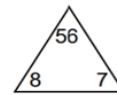
Complete each family of facts.



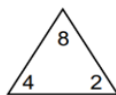
$$\begin{array}{l} \square \times \square = \square \\ \square \times \square = \square \\ \square \div \square = \square \\ \square \div \square = \square \end{array}$$



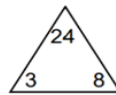
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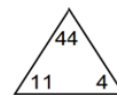
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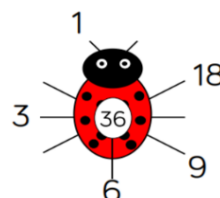
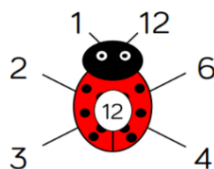
$$\begin{array}{l} \square \times \square = \square \\ \square \times \square = \square \\ \square \div \square = \square \\ \square \div \square = \square \end{array}$$

Is it \times or \div ? - How do you know? Show your working out.

1. A new book bag costs 63p. Helen orders 9 of them. How much does she spend?
2. Jill wants 42 cans of diet coke. Diet coke comes in boxes of 6. How many boxes will she need to buy?
3. Jose arranges 56 chairs in rows of 8. How many chairs will there be in each row?
4. There are 29 children in a class. Each child receives 3 dojos. How many dojos do they receive as a class?
5. Sophie buys 50 donuts for a staff meeting and they are shared equally between 5 groups of teachers. How many teachers are in each group?

Challenge:

Here is an example of a factor bug for 12
Complete the factor bug for 36



Are all the factors in pairs?

Draw your own factor bugs for 16, 48, 56 and 35

Maths 1.7.20

Here are three single digit cards.



Place the digit cards in the number sentence. How many different totals can you find?

$$\square \square + \square =$$

What is the smallest total?

What is the largest total?

Add and subtract three digit numbers with regrouping: Word problems.

Is it + or -? Underline the key word(s) in each problem.

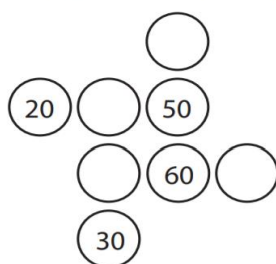
Use your knowledge of partitioning to show your working out. Reminder below:

Sum	Partition the hundreds	partition the tens	partition the ones	add them to get the final answer
$165 + 146$	$100 + 100 = 200$	$60 + 40 = 100$	$5 + 6 = 11$	$200 + 100 + 11 = 311$
Sum	partition the smallest number	subtract the hundreds	subtract the tens	subtract the units
$225 - 117$	$117 = 100 + 10 + 7$	$225 - 100 = 125$	$125 - 10 = 115$	$115 - 7 = 108$

1. There are 235 chairs available for the school concert and a further space for 128 to sit on mats. How many seats are there altogether?
2. Jose orders 146 Literacy books and 158 Numeracy books. How many new books has she ordered in total?
3. Jill has £3.50. She buys a magazine for £2.29. How much change will she get?
4. Sophie finds 259 jumpers in lost property. 169 of them are claimed before the school holidays. How many jumpers are still left?
5. Helen takes the school on a trip to the seaside. There are 462 children. 247 of them are girls. How many are boys?
6. Tara spends £5.72 on chicken and chips. Sara goes for a large which is £2.19 extra. How much is Sara's chicken and chips?

Challenge:

Complete this diagram so that the three numbers in each row and column add up to 140.



Now create your own diagram with a total of 250.



$2 \times 0 = 2$
 $5 \times 0 = 5$
 $10 \times 0 = 10$
So 100×0 must be
100.

I thought
multiplying
anything by 0,
would still be 0?



Who is correct? Prove it.



$327 + 58 = 907$
I know because, $300 + 500 = 800$
 $20 + 80 = 100$
 $7 + 0 = 7$
 $800 + 100 + 7 = 907$

I didn't get that answer.
I think $327 + 58 = 385$.



Who is right? How do you know?



$420 + 221 + 280 = 921$.
I know, because:
 $420 + 221 = 641$
 $641 + 280 = 921$

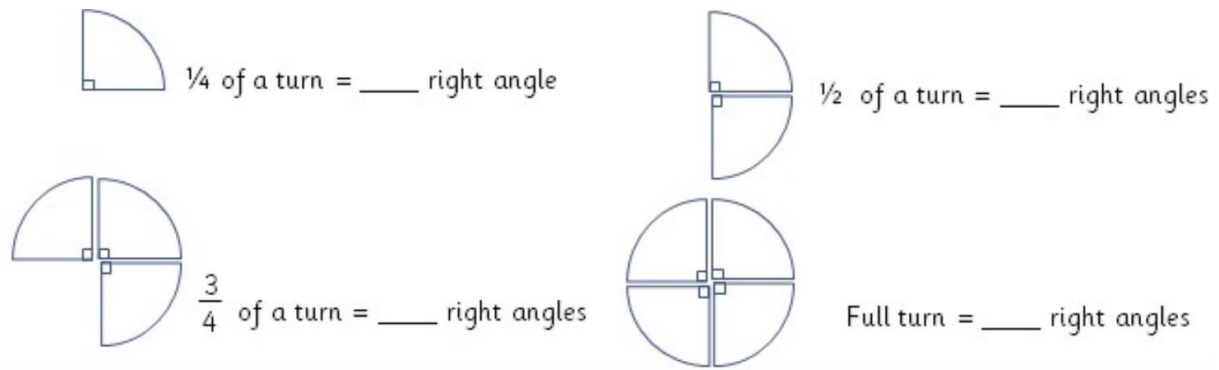
$420 + 221 + 280 = 921$.
I know, because:
 $420 + 280 = 700$
 $700 + 221 = 921$



Whose method do you prefer? Explain your reasoning.

Maths 3.7.20

How many right angles in each of these turns?



Sort these shapes based on the number of right angles they have.

<div style="display: flex; justify-content: space-around; width: 100%;"> A B C </div>				
Zero Right Angles	One Right Angle	Two Right Angles	Three Right Angles	Four Right Angles

<div style="display: flex; justify-content: space-around; width: 100%;"> A B C </div>				
Zero Right Angles	One Right Angle	Two Right Angles	Three Right Angles	Four Right Angles

<div style="display: flex; justify-content: space-around; width: 100%;"> A B C </div>				
Zero Right Angles	One Right Angle	Two Right Angles	Three Right Angles	Four Right Angles

Challenge:

Can you draw a triangle with:

- 1 right angle?
- 2 right angles?

Can you draw a quadrilateral with:

- 1 right angle?
- 2 right angles?
- 5 right angles?
- No right angle?

If some of these are impossible, can you explain why?