Maths

14.1.21

Mental & Oral Starter

1) Compare using $<$, $>$ or $=$

2) 340 children are divided into 10 equal groups.
How many children are in each group?

3) A square has a perimeter of 32 cm.
What is the length of one side?

4) Subtract 520 from 9,780

Mental & Oral Starter

1) Compare using $<$, $>$ or $=$

$3 \times 1 \; (=) \; 3 + 0$

2) 340 children are divided into 10 equal groups.
How many children are in each group? 34

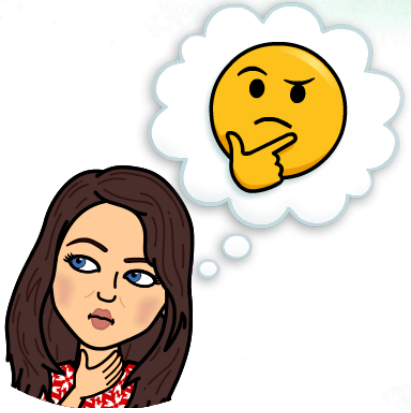
3) A square has a perimeter of 32 cm.
What is the length of one side? 8 cm

4) Subtract 520 from 9,780 9,260

WALT: Multiply 3 single digit numbers

S2S: **I can**

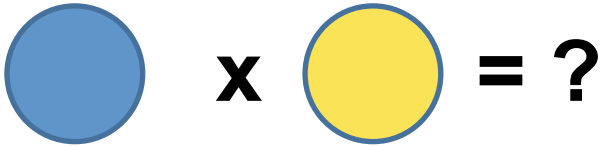
- Understand that I can multiply 3 single digit numbers in any order
- Decide which order to multiply them to calculate efficiently
- Problem solve



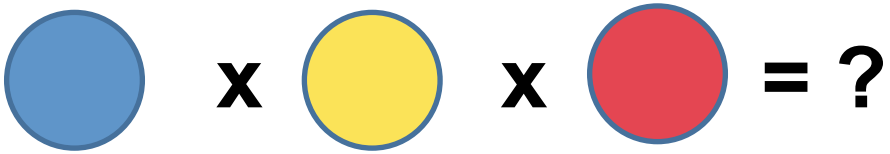
Let’s Learn

To be able to multiply 3 single-digit numbers

So far, we have worked out lots of multiplications involving two numbers…



…but is it possible to multiply **three** numbers together?



How could you represent this using arrays?

To be able to multiply 3 single-digit numbers

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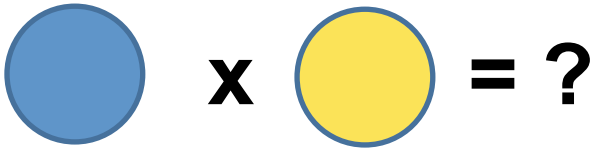

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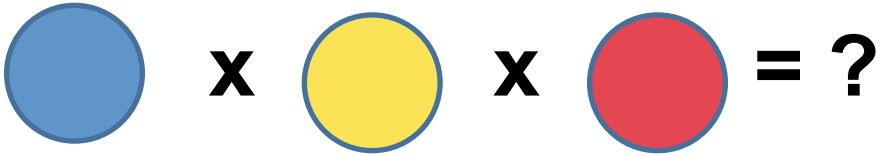
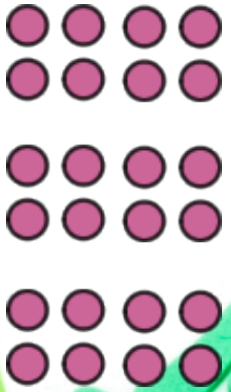


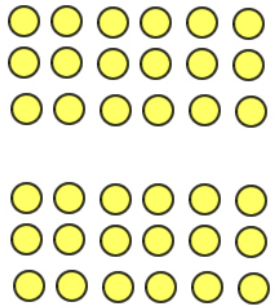
How could you represent this using arrays?

It is possible to multiply three numbers. We just multiply the first two and then multiply the answer by the third number. We can show this by repeating arrays. So, 2 x 4 x 3 can be represented by a 2 x 4 array repeated three times…



To be able to multiply 3 single-digit numbers

Fill in the blanks.

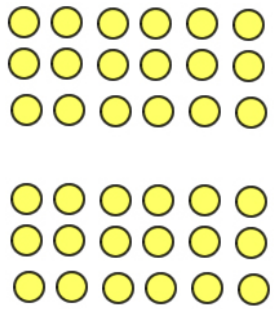


One array shows __ x __.
There are __ of these arrays.

The multiplication shown is __ x __ x __.
The total is___

To be able to multiply 3 single-digit numbers

Fill in the blanks.

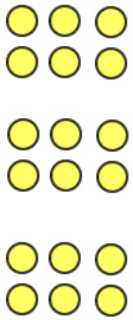


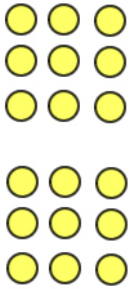
One array shows 3 x 6.
There are 2 of these arrays.

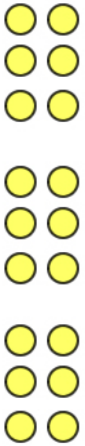
The multiplication shown is 3 x 6 x 2.
The total is 36.

To be able to multiply 3 single-digit numbers

Complete the calculations.







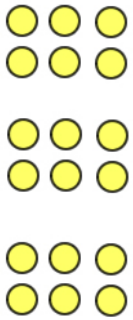
_ x _ x _
= _ x _
= _

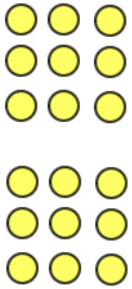
_ x _ x _
= _ x _
= _

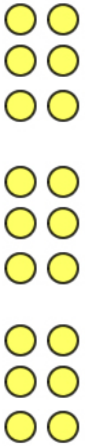
_ x _ x _
= _ x _
= _

To be able to multiply 3 single-digit numbers

Complete the calculations.







$2 \times 3 \times 3$
$= 6 \times 3$
$= 18$

$3 \times 3 \times 2$
$= 9 \times 2$
$= 18$

$3 \times 2 \times 3$
$= 6 \times 3$
$= 18$

No matter which way around we multiply these three digits, the answer remains the same.
Which calculation do you find easiest to work out?
(There is no right answer to this).

To be able to multiply 3 single-digit numbers

Ellie is asked to work out the calculation 5 x 6 x 2.

Which way around do you think she should multiply the numbers? Discuss why you think this.

To be able to multiply 3 single-digit numbers

Ellie is asked to work out the calculation 5 x 6 x 2.

Which way around do you think she should multiply the numbers? Discuss why you think this.

There is no correct answer to this question, but it is important to know that we can multiply in different orders to calculate efficiently.

For example, you may see that 5 x 2 equals 10 and you feel that multiplying 10 by a number is very quick to do. So you might choose to work out 5 x 2 x 6 (5 x 2 = 10 and then 10 x 6 = 60).

Or you might think that doubling is a quick strategy, so you might work out 5 x 6 x 2 (5 x 6 = 30 and then 30 doubled = 60).

Independent Practice (1)

Complete the multiplications.

a) $3 \times 4 \times 5 =$ ☐

b) $2 \times 3 \times 8 =$ ☐

c) $2 \times 4 \times 7 =$ ☐

d) $3 \times 5 \times 4 =$ ☐

e) $3 \times 6 \times 10 =$ ☐

f) $2 \times 5 \times 12 =$ ☐

Independent Practice (2)

Is each statement true or false?

Tick your answers.

	True	False
$7 \times 8 = 7 \times 4 \times 2$	☐	☐
$12 \times 4 = 2 \times 4 \times 6$	☐	☐
$3 \times 2 \times 8 = 5 \times 8$	☐	☐
$2 \times 7 \times 4 = 4 \times 7 \times 2$	☐	☐

Independent Practice (3)

Here are some digit cards.

3	5	6

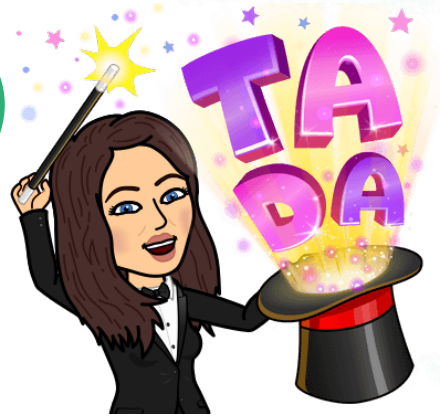
a) Use the digit cards to create a multiplication and work out the answer.

☐ × ☐ × ☐ = ☐

b) How many different multiplications can you create?

What do you notice about all of your answers?

Independent Practice (4)



In the library there are 5 bookcases.

Each bookcase has 4 shelves.

On each shelf there are 12 books.

How many books are there in the library?

Challenge

Krishna

8 x 7 x 2
is more than 2 x 7 x 8.
This is because it begins with 8 x 7 which makes a larger number than 2 x 7 in the second calculation.

Is Krishna correct? Explain your answer.