Supplementary activities for

BOOK

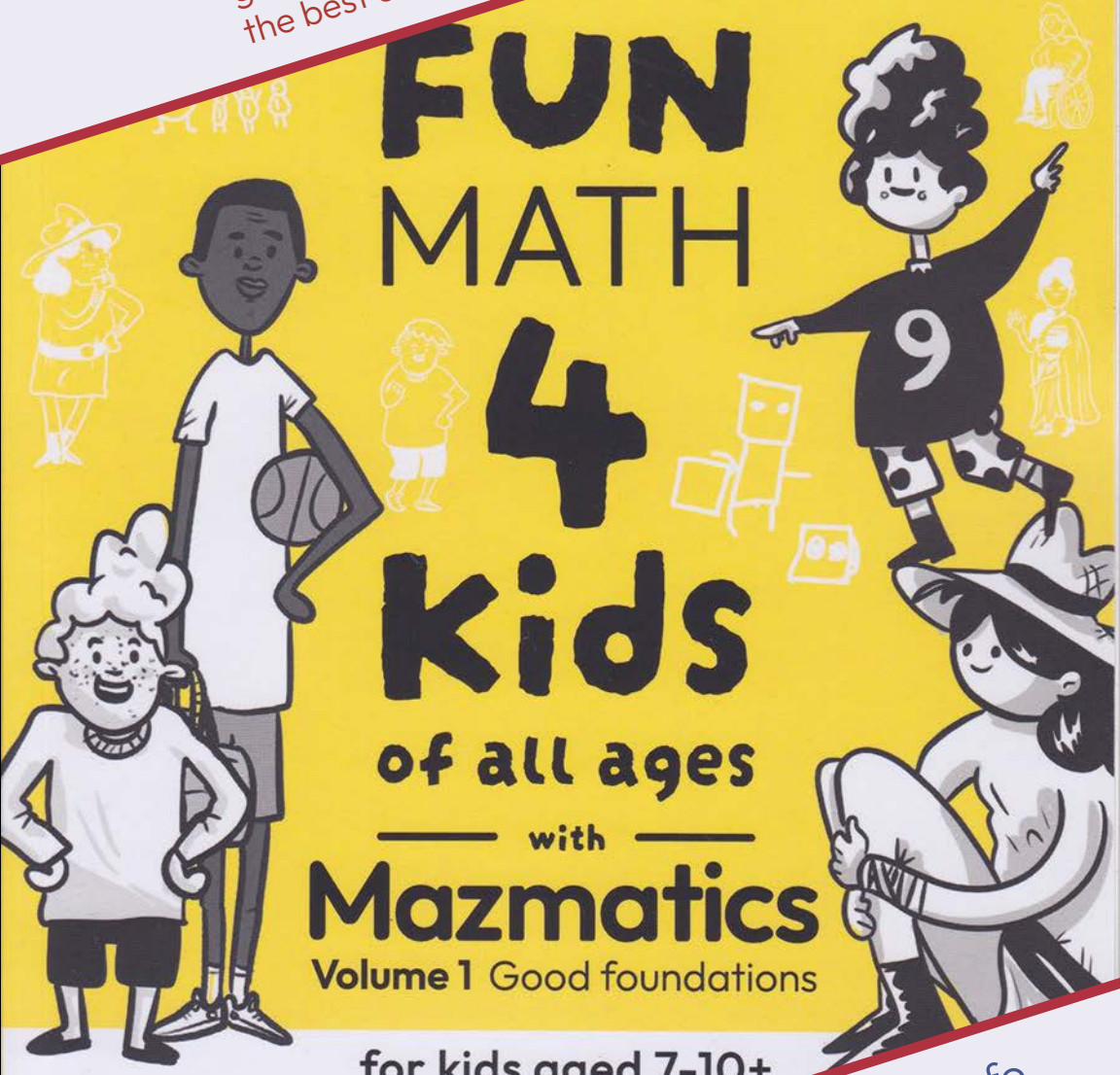
copies sold!

FUN MATH 4 Kids of all ages

with

Mazmatics

Volume 1 Good foundations



for kids aged 7-10+
and early learners of all

120+ pages of foundation... make addition & division...

...t homework)

Boring writing about this book

Mazmatics, for home play, not homework.

Hi there parents and caregivers (and kids if you're reading the boring bits), and welcome to Mazmatics volume 1. Woop woop! We're stoked you're reading this right now and hope you're excited about the possibilities this book might hold for you and the kids in your life.

Mazmatics is an activity book and supplementary learning resource that helps to make math fun and useful for kids and early learners of all ages. It's pitched at US grade 2 - 6 levels for kids around 7-12+, however, we think kids and the young at heart of all ages will enjoy working on their fundamentals with this book. Even if you're 11 years old, or 14 or 27+ we all need good fundamentals before we can enjoy the next level of ideas and equations. We've written this book to be used alongside other math learning, not to replace it. Kids should listen to their teachers, but this book gives them more chances to practise what they're already learning because we believe practice is the key to developing a skill.

How do you get good at playing the drums? You practise the drums. How do you get good at playing the guitar or dancing or sports? Yup, you have to practise your skills at the thing you're trying to get better at. So if you want to get better at math and make it something you can enjoy, how are you going to get better? You got it.

We need to practise our math if we want it to be something we can do and enjoy over our lifetime.

So what's going to make practising math seem like a good idea for kids?

We think that by making things more fun and relatable, kids might actually want to practise more and more, especially if we can show how math really is useful in daily life, outside of the classroom. We're also thinking that an option to get out the old pencils and paper means this book can be used in many situations and brings things back to basics, no batteries required.

See what you and your kids think, and we'd love to hear from you if you have thoughts on this book you'd like to share with us at mazmatics.com We're hoping this could be the first in a series of books since there's so much to explore and have fun with. We've even saved room for a vol zero if that would be fun.

Wait what?!

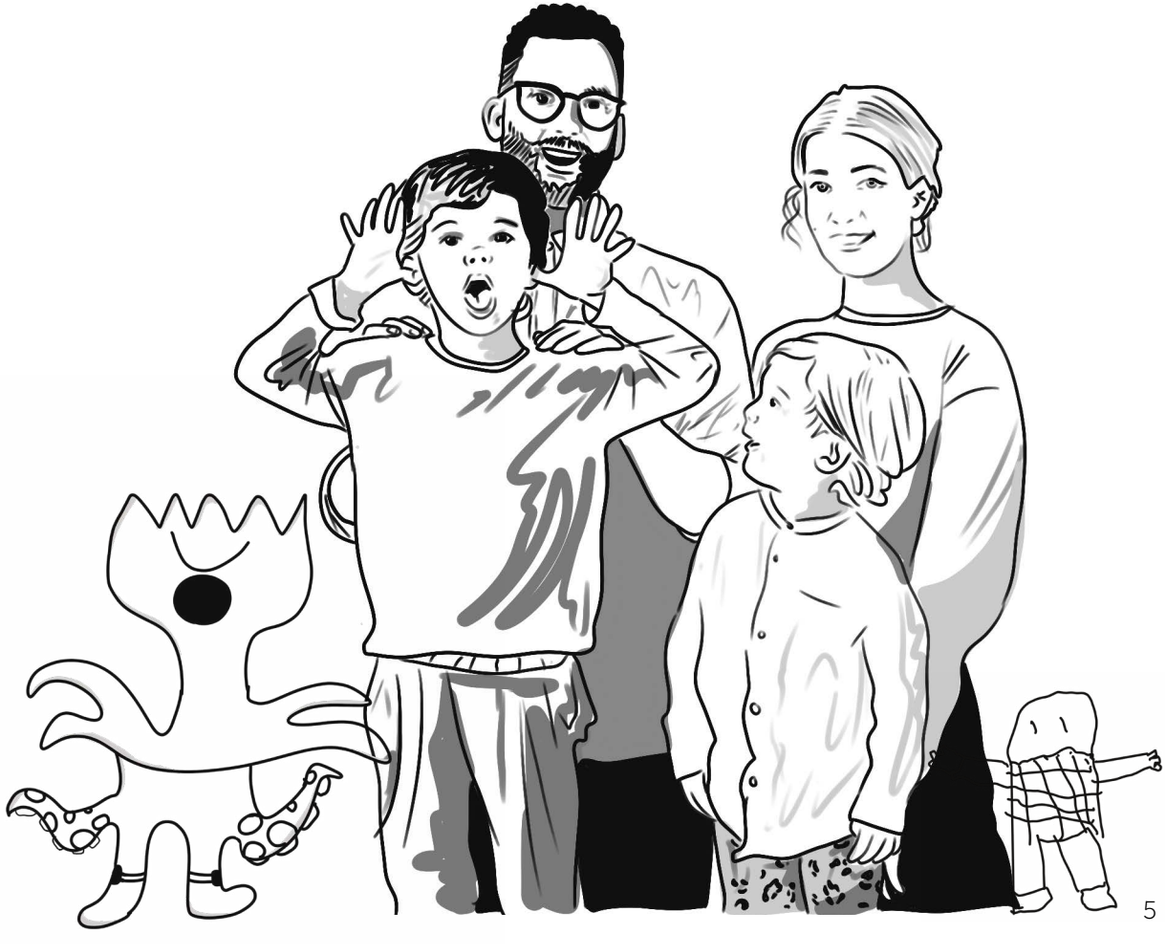
Who wrote this book anyway?

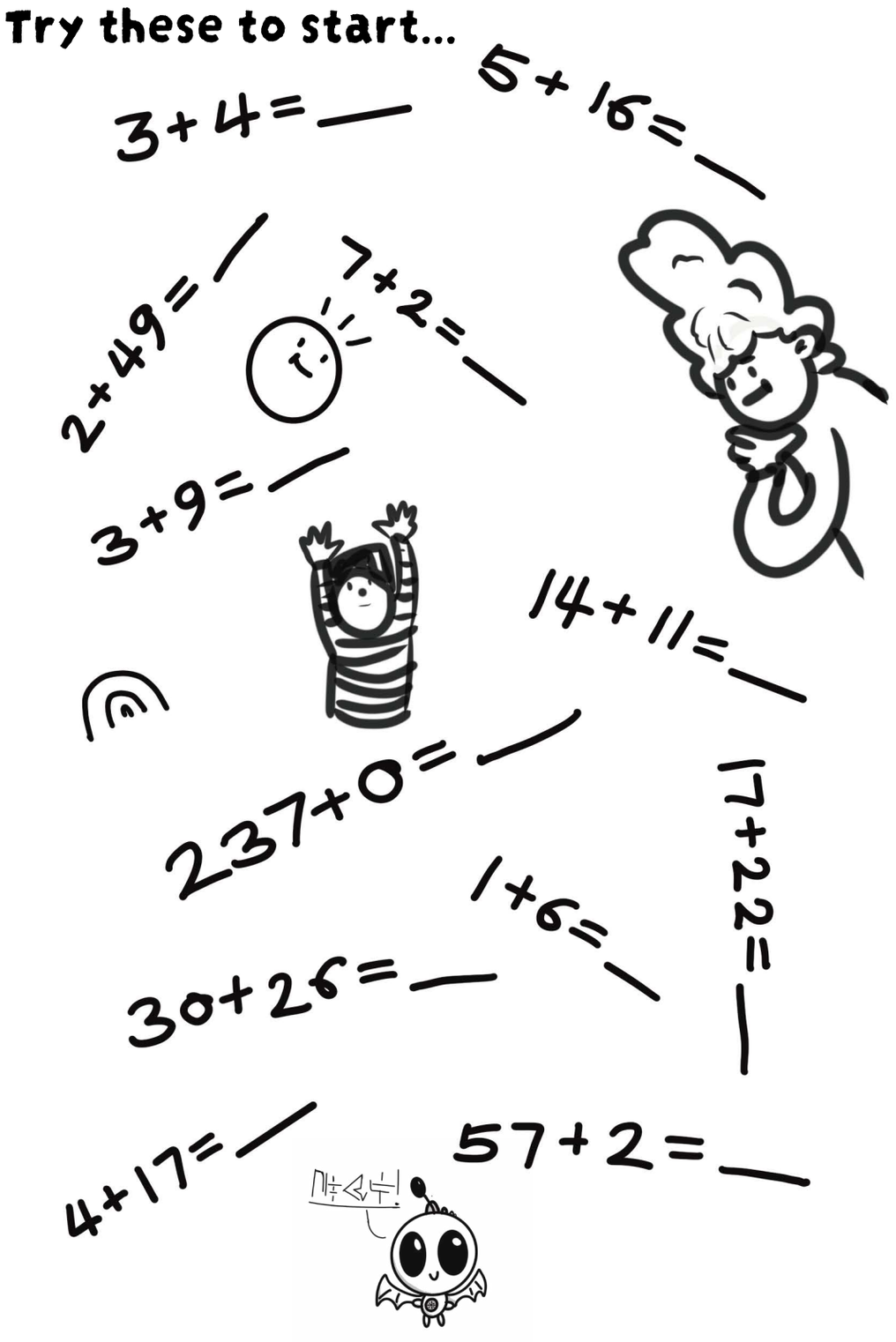
Hi, I'm Maz Hermon, a father of two kids (currently 9 & 5). I'm a web developer (computer coder) by day and a creative hobbyist by night. I'm not particularly amazing at math, but I do find it enjoyable and fascinating and I love to play around with learning of all sorts. I'm not a teacher, but I have a good imagination and like to have fun with my learning. I've written this book with my kids to offer some supplementary learning resources for kids that can sit alongside and support what kids are learning in school.

My interest in learning math again as an adult was related to using some basic trigonometry to calculate trajectories of moving objects while programming some game animations with JavaScript. I was delighted to have a real life use for math and to see how fun and practical math can be in creative projects (and likely other unexpected places). I know some kids can get turned off from math at an early age and start to disassociate themselves from thinking 'yeah this is for me too', so I thought this book might help kids to connect with math and maybe even enjoy it. Even though I work on large enterprise-level websites for a living, I like the idea of my kids having access to paper books so math can be something we do away from the computer. I'm also a big fan of learning math on the computer. Both are good I think, and having access to both gives kids more opportunities to get some practice in. I live in Aotearoa New Zealand with my little family of four and hope this book helps some kids of the world to have more fun learning math, wherever you are. Have fun :)

Maz Hermon,
Creator of Mazmatics

With drawings and ideas from
Maz Hermon, **Otto Hermon** &
Angelo Hermon
and with love and support
from Suni Hermon





Addition refresher

Do any of these make your brain feel weird?

That's OK! That's how we know what type of equations we should practise some more :)

Do you know how people get good at things like sports? Or writing? Or playing music? **Yep**, they practice. Math is the same, you gotta keep at it to keep it **fresh**.

Maybe you'd like to circle the ones that you find tricky and see if you can come back and solve them later? Only if you want to, no biggie.

We'll do a quick refresher soon on how to add things up when there's more than one digit in each number. But first, let's have some fun :)

How do you doo doo?!

Imagine... that you have a beautiful little puppy dog that you love...

Oooooo it's sooo cute!

Now you have a dog, you have to pick up its **poop**. But how many **poops** do you have to **pick up?**

This is when you may be thinking...
"**hmmmmm** what have I gotten myself into here..?"

For each day of the week, imagine you take your dog for a **walk** or two, and each time, your dog might do a poop or two (or three?).

On the next page...
Write down a **number** (you can make it up) of **poops** your dog did for each day, and then we can add them up to see how much poop your doggy did. Lol 💩🤣

On Monday, my dog did **2** **poops**,

I've put the 2 in the table on the next page for you, to give you the idea.

(I know right?! )

Tuesday my dog did ____ **poops**,

Wednesday my dog did ____ **poops**,

Thursday my dog did ____ **poops**,

On Friday, my dog did ____ **poops**,

Then on Saturday my dog did ____ **poops**,

And on Sunday, my dog did ____ **poops**,

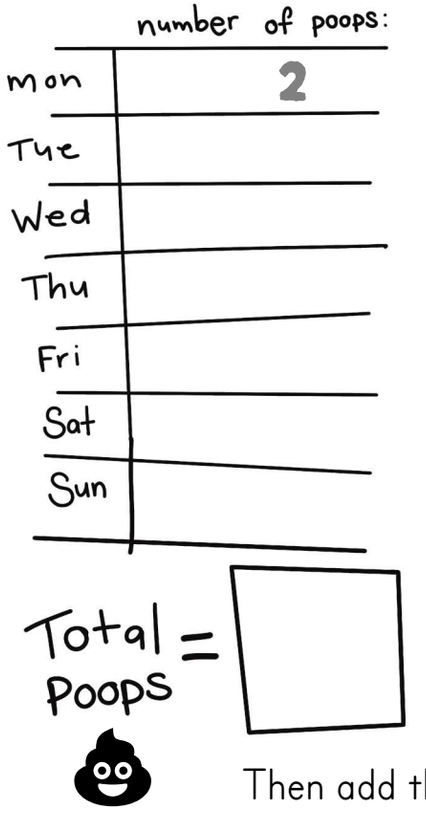
Now use the table on the next page to help you add them all up

So how many poops did your doggy do in a week?

Let's use the table on the next page to add them all up.

Write a number of **poops** for each day of the week in here in this tally chart.

This makes it easier because we can line all the numbers up.



Then add them all up and write the total number of **poops** in this box :)

Woah that's a lot of **poop**! **Peeeee-ewwwwwwww!**

Can you draw your dog and all the poops it did?! 

Now you know how many poops your dog did in one week... How many would that probably be for **2** weeks?

_____ **x 2 =** _____

If there are **52** weeks in a year (which I believe there are), how many **poops** would your doggy do in a whole year??! _____

I'd use a calculator for this one, since we haven't looked at multiplication together yet. But you do you.

Warm ups

3 + 5 = 8	4 + 5 =	34 + 31 =
7 + 6 =	8 + 8 =	6 + 5 =
	9 + 3 =	4 + 6 =

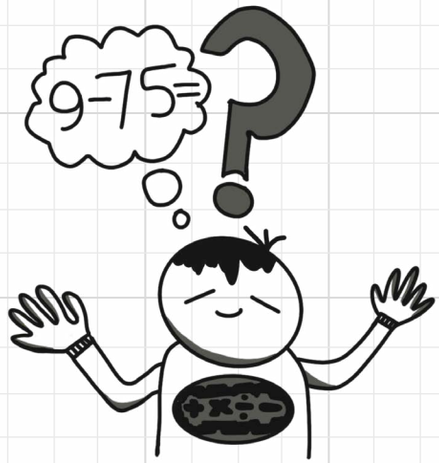
12 + 6 =	4 + 5 =	9 + 3 =
81 + 16 =	114 + 23 =	2 + 3 =
31 + 14 =	7 + 11 =	14 + 7 =

Too easy?

Keep going and find a good one for you. Sometimes it's good to start with some easy practice to get your brain working.

mmmmmmm brains!

Use this paper to work things out
(or just to doodle on)



What about double digit numbers?

Or triple? or quadruple? (or some other big number...)

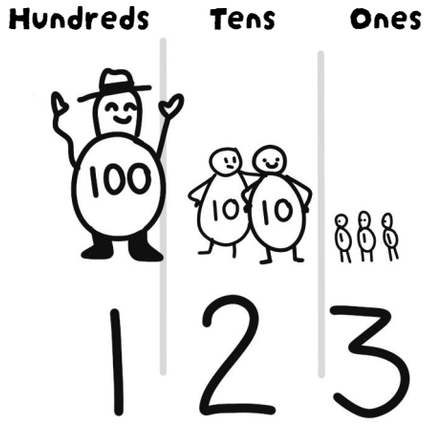
Or maybe your doggy already did double digit numbers of poops in the last exercise?! Whoa, they must eat a lot.

Annnyyhooo...

To get more comfy with adding up **2** digit numbers like **23 + 78** or something, it helps if we refresh our memories about what some people call '**place value**'.

Place = 'where does it go'

Value = 'how much does it count for'



We'll come back to this, but here's what we're talking about. If you take the number **123**.

The **1** is in the **hundreds** column.

The **2** is in the _____ column. (read ahead if you're not sure yet, then come back),

and the **3** is in the _____ column.

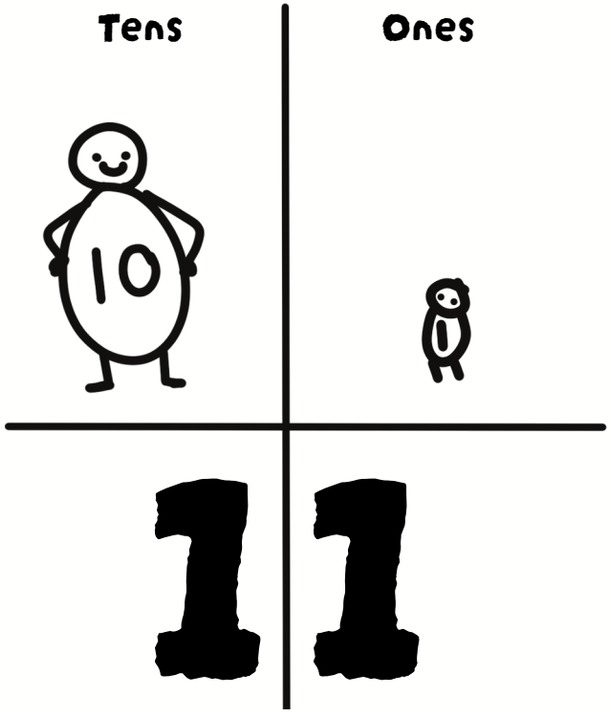
So in the number **123** (like in the picture above), the digit **1** doesn't just mean **one**, it stands for ____**hundred**.

And the **2** digit doesn't just mean two, it means _____

But the **3** digit is in the **ones** column, so that means **3**.

Place value

When you see a number with more than **2** digits, like say... **11**, its made up of a **1** next to another **1** right? But each of those **1**'s has a different meaning. The **1** on the left is actually in the 'tens column', which just means we think of that as bigger than the other **1**. It's like this:

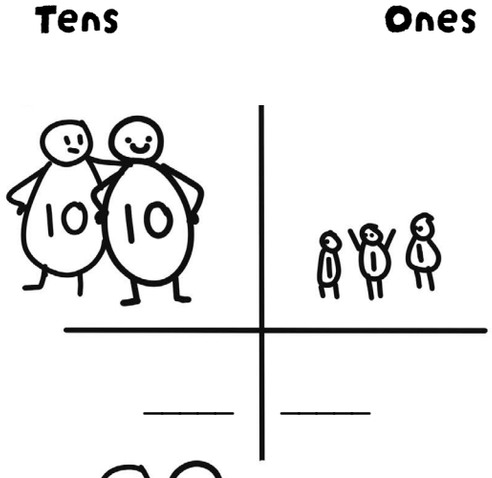


You could think of the number **11**, as being made up of one **10** and one **1**. So when you add **10 + 1** what do you get? Yep, **11**.

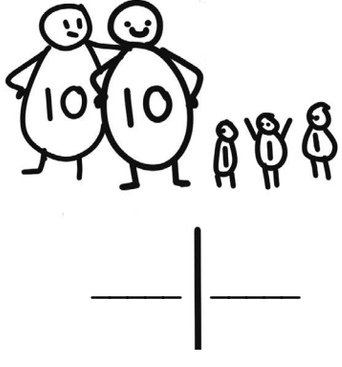
Now take the number **23**. Do you see how **23** is made up of **2** tens, and **3** ones?

See if you can write the number **23** putting one number in each column below. Look at the **11** on the previous page for a clue.

You could think of this number **23** as being the same as **10 + 10 + 1 + 1 + 1**

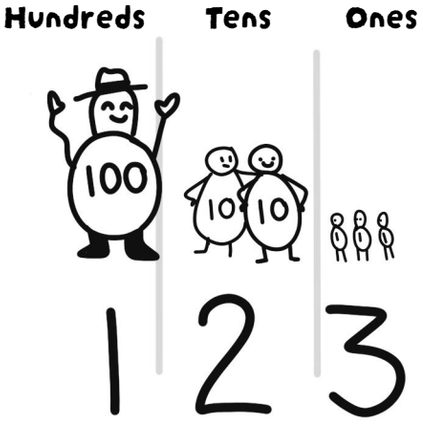


And again but shuffled closer together...



After the tens column, comes the **hundreds** column.
Oooooo, aahhhhhh :)

It keeps going (and going) but let's stop there for now.



How many **hundreds** does the number **123** have?

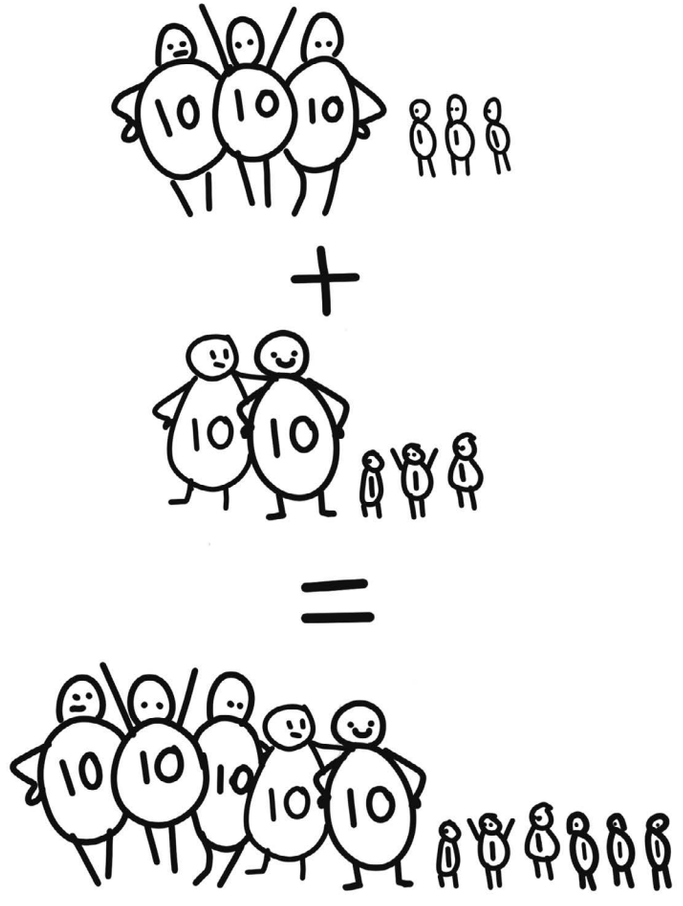
_____

How many **tens** does **123** have? _____

How many **ones** does **123** have? _____

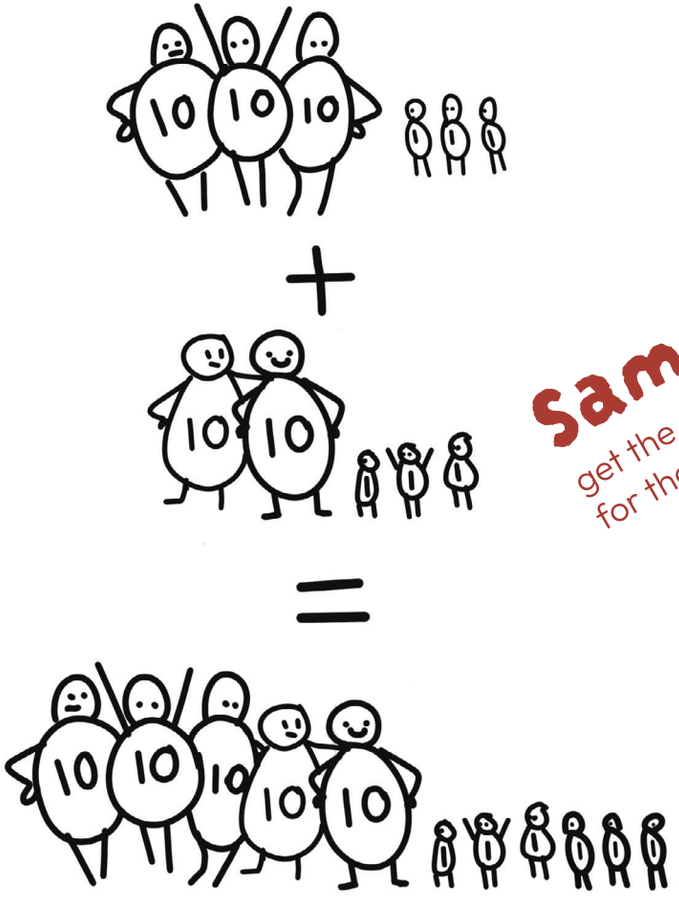
See if you can guess the equation that this picture is trying to show...

_____ + _____ = _____



Look at both of these pages together. Do you see how they are different ways to look at the same equation?

Have a play around, color in the little people if you like. Get to know them :)



To save us drawing little people all day, sometimes we like to write out these equations like this big one below. Do you see the + sign?

The big line is kind of like the = sign here. It's just a line to say we'll add the numbers up and put the answer below the line. (Sometimes the answer is still waiting for you to fill in, so sometimes there's nothing under the line).

$$\begin{array}{r} 33 \\ +\ 23 \\ \hline 56 \end{array}$$

Here's an example of one way to solve this same equation from the last page. If I see **33 + 23** I'd add up the numbers in each place value column, like this:

$$\begin{array}{r} 33 \\ +\ 23 \\ \hline \end{array}$$

First do the ones column

$$\begin{array}{r} 33 \\ +\ 23 \\ \hline 6 \end{array}$$

Then do the tens column

$$\begin{array}{r} 33 \\ +\ 23 \\ \hline 56 \end{array}$$

Here's another way to look at it:

$$\begin{array}{r} 33 \\ +\ 23 \\ \hline \end{array}$$

$$\begin{array}{r} 33 \\ +\ 23 \\ \hline 6 \end{array}$$

3 + 3 = 6

$$\begin{array}{r} 33 \\ +\ 23 \\ \hline 56 \end{array}$$

30 + 20 = 50

Now for some practice time, Awwww yeah! Practice time!!

Watch out numbers, we're about to open up a **can of whoop Math!**

Whoop Math? Oh dear... :) but trust me, once we've done some practice on these we can start having more **fun** with adding things up and making Math more useful for you, like how to know how many **cookies** you should get...

$$\begin{array}{r} 33 \\ +\ 12 \\ \hline 45 \end{array} \qquad \begin{array}{r} 4 \\ +\ 56 \\ \hline \end{array} \qquad \begin{array}{r} 12 \\ +\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ +\ 33 \\ \hline \end{array} \qquad \begin{array}{r} 16 \\ +\ 3 \\ \hline \end{array} \qquad \begin{array}{r} 10 \\ +\ 10 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ +\ 71 \\ \hline \end{array} \qquad \begin{array}{r} 67 \\ +\ 43 \\ \hline \end{array} \qquad \begin{array}{r} 8 \\ +\ 11 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ +\ 5 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 4 \\ +\ 5 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ +\ 31 \\ \hline \end{array}$$

$$\begin{array}{r} 17 \\ +\ 71 \\ \hline \end{array}$$

$$\begin{array}{r} 58 \\ +\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ +\ 57 \\ \hline \end{array}$$

$$\begin{array}{r} 177 \\ +\ 12 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ +\ 6 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ +\ 62 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ +\ 16 \\ \hline 88 \end{array}$$

$$\begin{array}{r} 44 \\ +\ 55 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ +\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ +\ 16 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ +\ 3 \\ \hline \end{array}$$

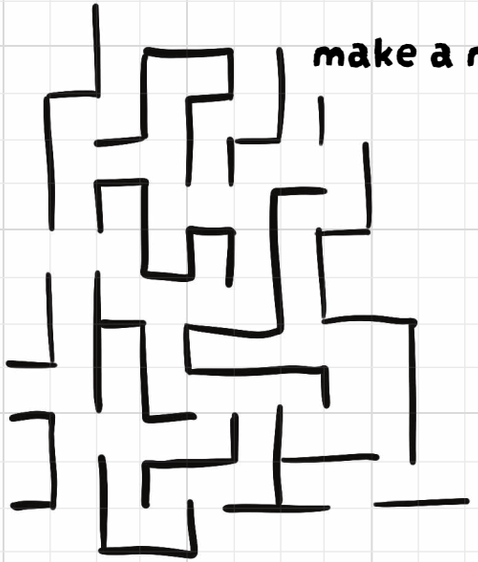
$$\begin{array}{r} 57 \\ +\ 41 \\ \hline \end{array}$$

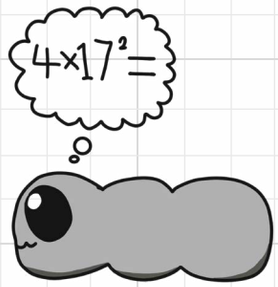
$$\begin{array}{r} 31 \\ +\ 14 \\ \hline \end{array}$$

$$\begin{array}{r} 77 \\ +\ 11 \\ \hline \end{array}$$

$$\begin{array}{r} 77 \\ +\ 77 \\ \hline \end{array}$$

make a maze?





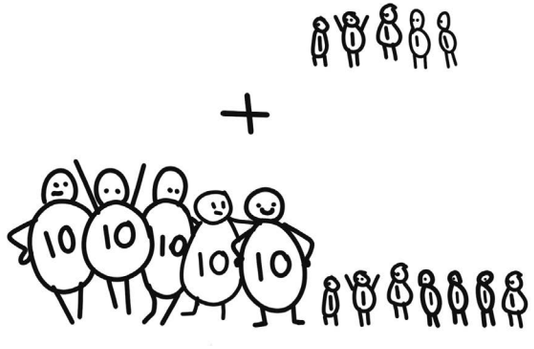
What happens when the ones column adds up to more than 10?

Did you get any of these ones? Like in **4 + 6**, See how the **4 + 6** adds up to **10**?
What did you do with the **10**?

Or what about this one?
Now the **ones** column adds up to **12**.

$$\begin{array}{r} 5 \\ +\ 57 \\ \hline \end{array}$$

If we draw it as little people again, it might look like this:



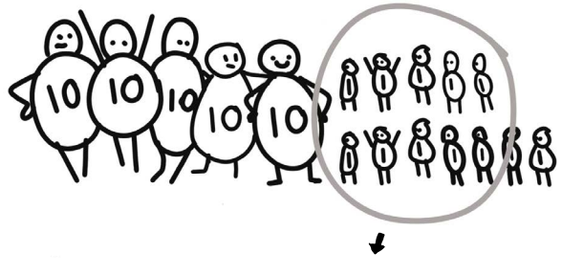
And if we add up all the ones, we have _____

(Psssstttt... you can count these smallest people to get the answer for the number of ones)

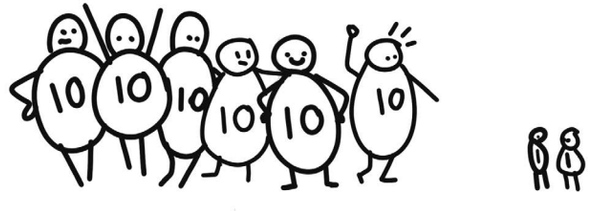
So now we have **5 tens** (that's **50**)
and ____ **ones** (that's ____) so ____ **+** ____ **=** ____

You might want to stack the number on top of each other to help add them up. Use the grid paper spread throughout this book.

Do you see how we can take the **12** **(cough)** and split that up into **1 ten** and **2 ones**?



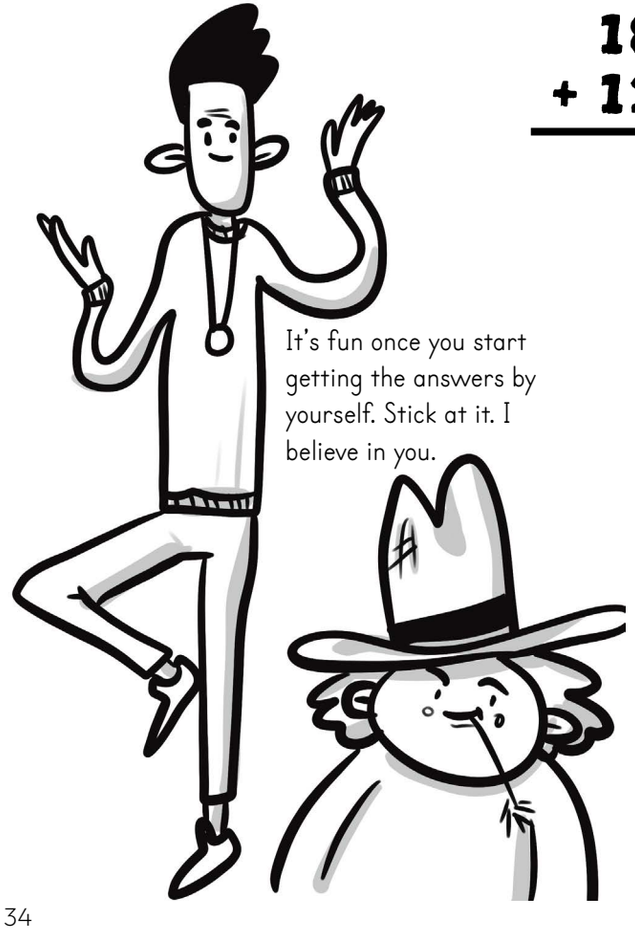
Like this:



So now we have _____ **tens** and _____ **ones.**
So **5 + 57 =** _____ **(cough, 62, cough cough, excuse me, frog in my throat!)**

Now try these...
You can use the things we covered on the last pages to help. Or use what you already know.

7 + 5 = 12	14 + 26	24 + 39
97 + 15	44 + 57	56 + 16
	18 + 12	8 + 6
		26 + 79
		92 + 29



72 + 19 = 91	12 + 37	19 + 3
21 + 44	62 + 13	19 + 57
11 + 29	36 + 12	28 + 12

Use this paper to work things out
(or just to doodle on) ✎

Oh, that's so sweet :)

We add **fractions** all the time without really thinking about it. I bet these puzzles are easy when you think of eating apples. Try it out and see...

Color me in?

I think to myself 🤔...
If I eat **half** an apple for breakfast...
quarter of an apple for a snack...
and **three apple quarters** at lunch...

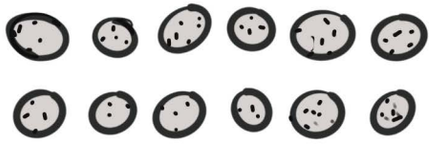
How many apples did I eat today? Let's see.

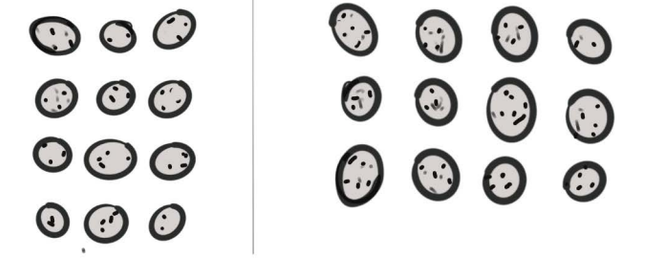
...continued in the paperback

There are 12 cookies
and 4 kids
How many cookies will
they each get?

Draw the cookies into
each kid's hand.
Remember you have
12 to give out.

With **each** batch of **12** cookies below, draw a line around some cookies to show how many cookies each kid will get. Are you gonna make it fair?





$12 \div 4 = \_\_$

Done? If so, nice job. Now, using a different colored pen, can you show a differnt way to divide each batch up?

Now try these...

Imagine the big number is the number of cookies...
and the smaller number is the number of friends that want to nom nom nom nom...

$12 \div 4 = \_\_$

Cookies **kids** **cookies each**

$10 \div 2 = \_\_$

$20 \div 2 = \_\_$

$15 \div 3 = \_\_$

$100 \div 10 = \_\_$

$6 \div 3 = \_\_$

$70 \div 1 = \_\_$

Lindy's Quest

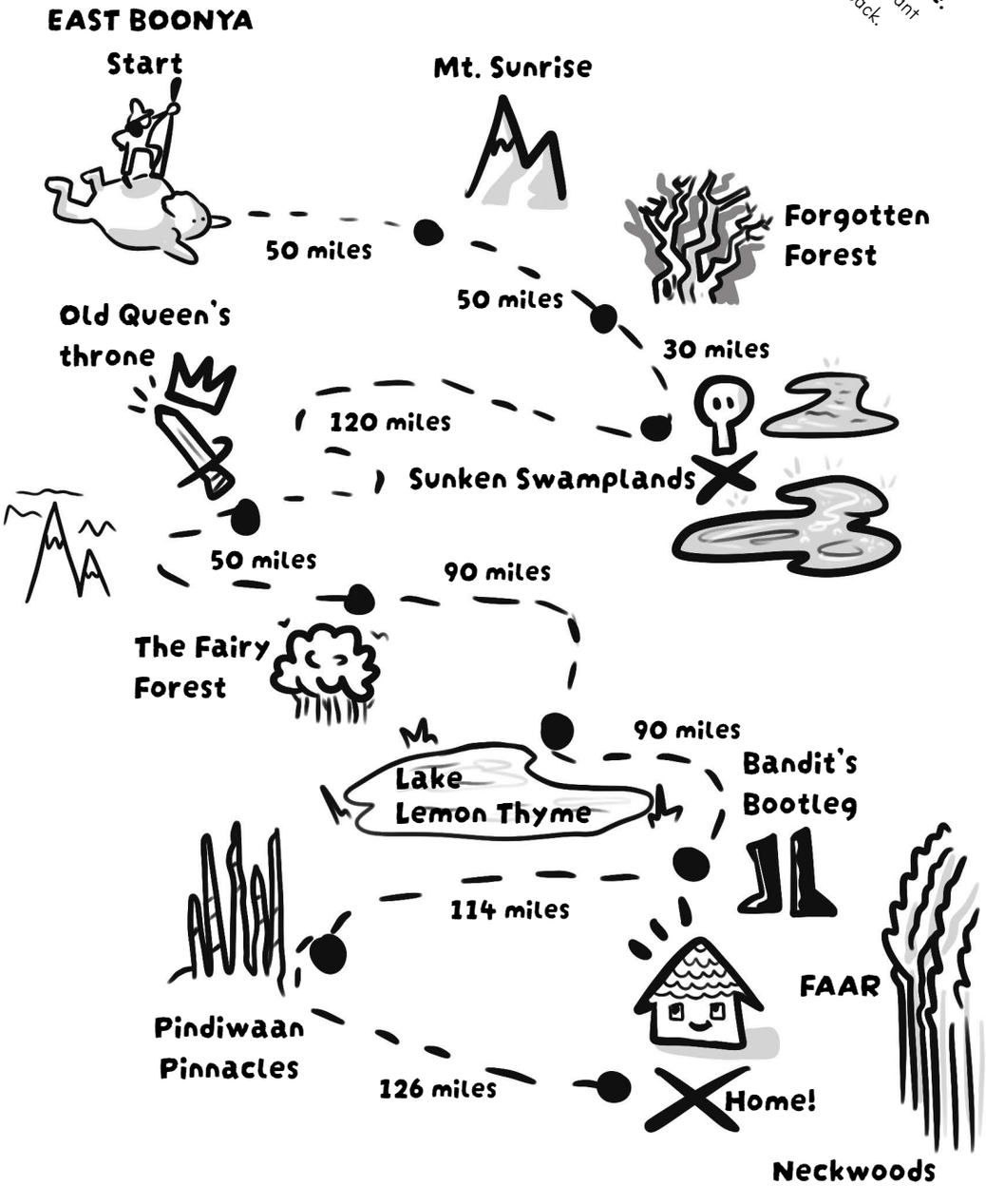
Are you ready to follow Lindy on her quest?
You can use your addition **"powers"** you've been practising to help you follow along.

Use the map to help you find the answers as you go. Maybe fold the corner of the map page over so it's easy to come back here?

Ask a helper to read this with you?

Dog ear this page.
You're gonna want to come back.

The Map



Lindy had just defeated the giant **mega troll** of **East Boonya**. She's tired. She's hungry. She has **720 miles** to journey to make it back to her cozy home under the **Neckwoods of Faar**.

On the first day, Lindy walks **20 miles**, has a break and then walks another **30 miles**.
Use the map to find out where Lindy will stay the first night.

Lindy has walked _____ miles

and is now in _____

Lindy woke up in _____ to the sound of '**tink**', '**tink**', ...'**tink**'.

She opened her lazy eyes in the early morning light, and what came into focus was both exciting and terrifying. She'd always wanted to see an Opiolla... but now it was trying to break into her water tanker, she wasn't so sure she wanted to see one right now.

Luckily she was using her knapsack as a pillow.
She reached inside and pulled out the last firework that she was saving for her birthday party. "Oh well, if I never get home I won't have a birthday party anyway, so I may as well use it now" she thought.

Lindy used her flint and steel to light the fuse and set the rocket off to (hopefully) frighten off the Opiolla.

Tttsssssssssss... went the fuse...

Continue the story in the paperback book

Did you enjoy the **free sample?**

Don't worry, there's heaps more in the paperback book :)

Visit mazmatics.com

or search "Mazmatics fun math for kids" on Amazon to get the paperback book for the kids in your life.

Have you done something to help your kids with their maths today? Will you?

If you want a hand, come see us

Mazmatics
mazmatics.com

Feedback from **kids**

Dear Maz, I loved your book. It makes math more fun! If you are going to make another book add some more of those practice doodling pages and another math story. Keep up the great work! PS. Love the characters!

Dear maz/mazmatics Your book was so good and funny I loved it, it was great. I loved the part where you did dot to dot with multiplication questions that made a poop (Hahahahahahahahahahah.) I also loved the pictures on the working space, especially the evil taco!!!! I learnt a lot, especially a new tactic! The one when you take away the last number and then add the the non taken away number then add the taken away numbers together then add both the answers together and there's your answer. It took me all day to do the whole book!! (with stops). I loved all the the faces/emojis everywhere, I look for a new ones on each and every page.

Feedback from **parents**

When I picked this up I was immediately drawn to the colloquial language and easy to follow format. It's written the way people speak so it's super easy to relate to. It uses real world examples that are relevant and entertaining. This makes math fun! Breath of fresh air. Thank you.

This book is excellent, starting out with kids jokes to gently and hilariously introduce simple math. The illustrated story in the book contextualises math in a way that kids can relate to. The math gets more complex relatively quickly but keeps up the same non pressured conversational style, using drawings to clearly break down the principles. Great book, would highly recommend.

This is a fantastic activity book for giving kids an extra push with math, and it's put together in a way that really makes it fun. My son hates doing his school homework, yet loves this book!

My sons adore this book!
We got a copy for our 7 and 9 year old son, and they have both sat happily for hours enjoying the books engrossed in the maths and the stories along with it. In their words "so funny and playful, but also you still learn".

WOW

You're amazing.
I hope you had fun.

Can you go and teach a friend something that you've learned?

Teaching others will help you to learn. Win, win.

We'd love to know what you thought of this book.

Please let us know at
mazmatics.com

or email us at
hello@mazmatics.com

You can review this book online if you want to help other kids & parents find it.

Remember, always stay safe on the internet.
Ask an adult you trust to do this with you.
Awww yeah, internet safety FTW.

Thanks for spending time practising with us.
All the best from your buds,
Maz, Otto and Angelo