Book 4's Friday Maths

Problem Solving

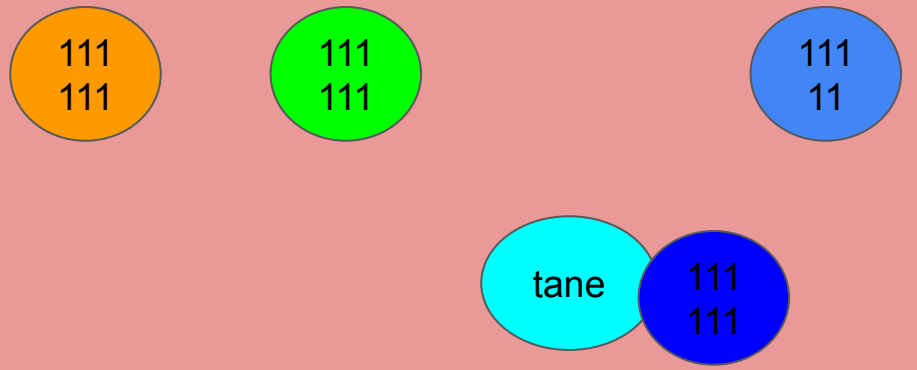
Make your own copy of this slideshow and file in your Maths folder.
Show your working under **each** question. You can use any equipment of your choice to show your working, eg. Numicon shapes, IWS, counters, scrap paper... whatever works for you!

Tane has 23 collector cards that he wants to share with his three friends.

He deals the cards out evenly to himself and to each of his friends, then he keeps the leftovers himself.

How many cards does Tane have after sharing?

- What are the key words in the problem? -Highlight them.
- Can I represent the problem as a diagram? As a number operation?
- What kind of a maths problem is this one? How do I know?



One of tane's friend just get one least card.

An even spread

A gardener has 7 bags of compost to spread evenly over 4 flower beds.

How many bags of compost does each bed get?

- Have I shown my workings in a step-by-step way?
- Is the working clear so I can follow it and look for any patterns?

If you have 7 and then you put 1 bag in each =4 +then you split ⅕ of the bag into 1 and then tip the rest into it. Then you can do the same for the next 1 bag, then you split the last bag into 4=7

A restaurant makes a super-long table by placing 4 normal tables end to end for a big party.

Each normal table usually seats 6 people around it.

How many people can sit down to eat at the long table?

- What do the numbers 4 and 6 mean in this problem?
- What strategies will be useful to solve a problem like this? (You might like to Draw a diagram, use counters, create a table, and looking for a pattern.)

Cause if you have 2 each side than it equals 16+ the 2 ends = 18

Matiu and Ariana have agreed to work for their Mum over the holidays.
The pay they get will vary.

Ariana will get $10 for the first day she works and two more dollars for every day she works after that.

Matiu will get $1 for the first day he works, but for each day he works from then on, his pay will be doubled.

Who would you rather be and why?

I would rather be matiu because ariana gets $10 for the first day then she gets $2, rather than matui who gets $1 dollar on the first day , then it’s doubled the rest of the times.

Toni is selling caps for the basketball club.
The picture shows the **number of caps** that Toni sold during the first three weeks.

Week 1	
Week 2	
Week 3	
Week 4	? ? ?

How many hats must Toni sell in week 4 so that the **average** number of caps that she has sold per week is 7?

Toni sold 8 in week 1 6 on week 2 and on week 3 he sells 3 . so on week 4 he sell's 1 and by week 7 he would have sold 0

Here's a **subtraction** problem.

The numbers **a** and **b** stand for digits.

If the two subtraction sums give the same answer, what digits do **a** and **b** stand for?

$$\begin{array}{r} 500 \\ -\,ab5 \\ \hline \end{array} \qquad \begin{array}{r} 5ab \\ -\,500 \\ \hline \end{array}$$

It would be
500-45

It would be
350-45

One third of the animals in the barn are chickens. The rest are pigs.

There are **20 legs** in all.

How many pigs are there?

There are 15 chickens because that is a ⅓ of chickens and then there is 5 pigs so there is so there is 20 sets of animal legs.

Six business people meet for lunch and shake hands with each other.

How many handshakes are there?

There is 12 because if you go like 6x2 = 12

Niko and Kaia buy their father a card for Fathers' Day.

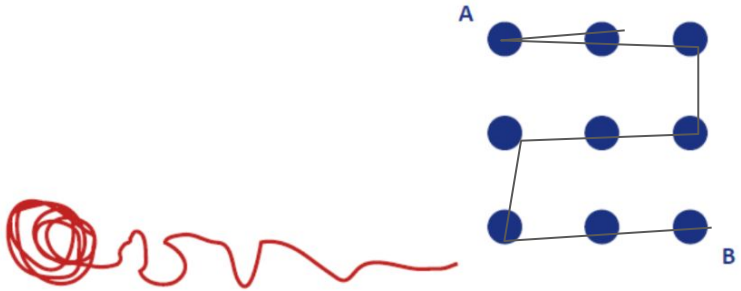
The card costs $5.90. Niko puts in 40c more than Kaia.

How much do they each contribute to the card?

Kaia
Kaia pays $2.20c

Niko
Niko pay's $3.30c

Brian has a pegboard with 9 pegs in a 3 by 3 square array (see the diagram).



He also has a piece of string that he wants to put from the top left hand peg A, to the bottom right hand peg B, so that it touches all of the other pegs on the way only once.

If the string is never put diagonally between the pegs, how many different ways can Brian string up his pegboard?

I have polylined it as you can see, here I have kinda went in a snake kinda shape

Ripeka and Jan were sitting around playing with toothpicks when Ripeka started to make a **pattern of squares.**

How many toothpicks would she need to make a pattern like this that had 9 squares?

If one box had 4 toothpicks and you just count the boxes = 24.