# 3-6: REMOTE MATHS
## EDITION 5

## PROBLEMATIC MULTIPLICATIVE THINKING

**Mathematical language:** Fractions, remainders, calculate, strategy, multiply, divide, groups of, altogether, quantities.

### TASK 1: RAINBOWS

Many families and local communities are displaying rainbows in their front windows during COVID-19 to help brighten childrens' days.

- Go for a walk in your neighbourhood and count how many rainbows you can find.
- If each rainbow had seven coloured arches, how many arches did you find in your neighbourhood? (note the image of the rainbow here has 6 arches)
- Demonstrate your working out two different ways.



### TASK 2: TEDDY BEARS

Also appearing in many neighbourhood windows are teddy bears (two legs) and unicorns (four legs).

If you saw 72 legs altogether, how many were teddy bears? And how many were unicorns?

**Enabling prompt:** How many combinations of teddies and unicorns could you make with 16 legs?

**Extending prompt:** Show your working out two ways.

### TASK 3: DIVIDING MADNESS

For each of these problems, explore the different ways remainders may be expressed when sharing for example: remainder, decimal, fraction. Draw and record your findings.

- 25 balloons shared equally among 4 people
- $25.00 shared equally among 4 people
- 25 cookies shared equally among 4 people

**Extending prompt:** Do not use the same remainder expression more than once.

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## TASK 4: COMBINING ARRAYS    *Source Sullivan 2018.*

- How many small squares have been used to make this shape? Do not count each square!
- Find the answer in 2 different ways, preferably thinking about the arrays that you can find.
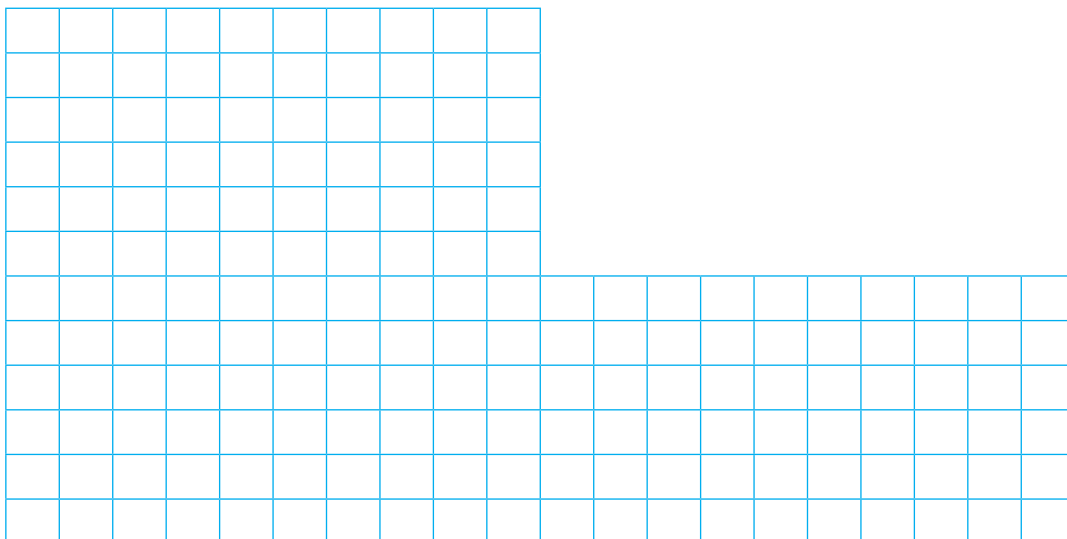
## TASK 5: CLASS CELEBRATION

Plan a celebration for your class to have at the end of this term by baking some cupcakes. This recipe produces 8 cupcakes.

45 g butter

1 tablespoon cocoa

Half a cup of self raising flour

Half a cup of sugar

A quarter of a cup of milk

1 egg

Half a teaspoon of vanilla extract

MAV would love your feedback on these resources. Click on the link or scan the QR code.

https://www.surveymonkey.com/r/MAHhomelearning

- Work out the quantities that you will need for a class of 24 students.

**Extending prompt:** Using Woolworths or Coles online shopping, calculate the minimal amount you would need to spend to make your cupcakes. For example, eggs can be purchased in half dozen, or dozen packages only. Which one would you need?

# READ AND INTERPRET GRAPHS/DISPLAYS

**Mathematical language:** More, count, data, display, different, fewer, list, pictograph, represent, same, most and least popular, most and least common.

## TASK 1: BAR GRAPH

Watch this video about creating bar graphs, https://www.mathplayground.com/video_bar_graphs.html.

Go to the Zoos Victoria live animal streams www.zoo.org.au/animals-at-home/. View the different videos or live streams of the animals and record the different activities these animals do. While you are watching, create a tally of their movements. For example: squawking, flying, eating, sitting, walking, eating, sleeping.

Using the information you collected, create a bar graph showing how frequently the one animal moved. Don't forget to give your graph a title and label the axis.

## TASK 2: WHAT'S THE QUESTION?

Some children in my class completed a survey. The results looked like this. What might the survey be about? What questions could they have asked? Label the graph. Be creative!
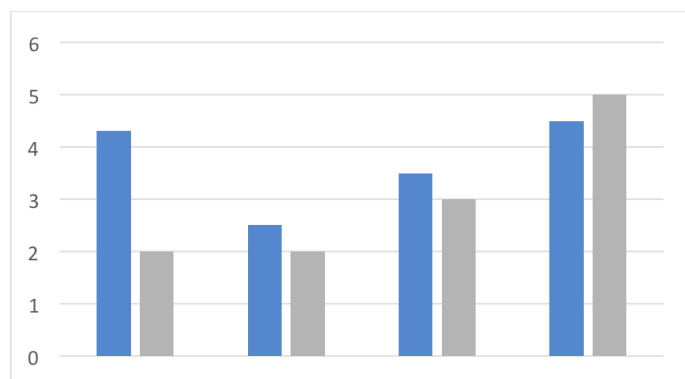


## TASK 3: FAMILIES FAVOURITE FOODS

What are your top 5 favourite foods? Interview your family and record their answers as a tally. Then create a graph of the results

- Sort the favourite foods into groups and create a graph of the results
- What is the most favourite food item?
- What is the least favourite food item

## TASK 4: WHERE IS THIS?

Below are graphs of popular visiting times of a common community facility. The graphs represent three different days in a usual week.

- What could the facility be?
- When are the most popular times to visit this location? Why do you think that?
- When is the least popular times to visit this location? Why do you think that?
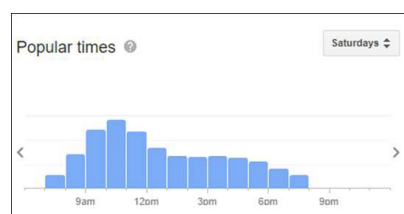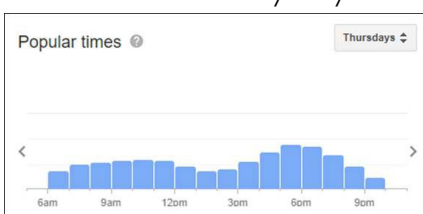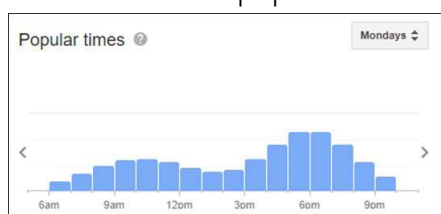


## TASK 5: DRAW A GRAPH TO SUIT THIS DESCRIPTION

A graph showed that among a class of students the most popular footwear was runners. The next most popular were boots. The next was sandals and the least popular was thongs.

**Extending task:** There were 4 more people who liked runners then boots. Half as many people liked thongs as boots.

## MATHS APP OF THE WEEK: 2048



Join the numbers and get to the 2048 tile. Swipe to move all tiles. When two tiles with the same number touch, they merge into one. Get to the 2048 tile, and reach a high score!

**Google Play**

https://play.google.com/store/apps/details?id=com.androbaby.game2048&hl=en

**iOS**

https://apps.apple.com/au/app/2048/id840919914

*Look out for more tasks next week!*

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