mathsweek

HORORATA

11 – 15 AUGUST 2025

Making Better Sense of Mathematics

Introduction

If your child's maths homework looks unfamiliar, that's because maths has changed – just like the world around us. Today's students still learn arithmetic, but they also need skills in algebra, statistics, and problem-solving to succeed in modern life and work.

Instead of just worksheets, your child may be solving real-world problems, like comparing costs or analysing data. This helps them learn to think critically, explain their ideas, and use technology – all essential for their future.

Today's maths is about preparing for tomorrow's world. Supporting your child as they learn in new ways gives them a strong foundation for what's ahead.

"If people do not believe that mathematics is simple, it is only because they do not realise how complicated life is" - ***John Louis von Neumann***

Parenting Tips

Everyday Counts

Math is all around us, and everyday activities are great chances to help your child learn. At breakfast, read the cereal box together. At the store, talk about prices, sizes, and measurements like grams or litres. If they have pocket money or a bank account, show them how to save, spend, and count it.

Math isn't just about numbers – it's also about words and understanding. Using math vocabulary in real life helps your child remember what they learn at school. Make it fun and practical, and you'll help build their confidence without just hovering over homework.

Building Relationship

Let teachers know you support them. Volunteer to help out on a weekly basis, if possible. If this is not feasible, then sign up to go on a class trip with your child's class or ask the teacher if there is anything you can help out with at home - like cutting out art materials. Also, ask the teacher for activity suggestions for you and your child to do at home to help improve and reinforce your child's understanding of schoolwork.

"Parents and teachers working together in partnership will help a child achieve success" - ***Alison Dewsbury***

Quality Time

Cooking is all about mathematics, and what a great way to spend some quality time with your child. Make chocolate chip cookies together. Have your child help you with dinner, all while throwing in a pinch of mathematics. Here are some examples:

- Have your child help read the recipe.
- Divide your recipe in half or double it, and have your child help you figure out the correct measurements and proportions.
- Talk about how many cups in a litre, how many grams in a kilogram, etc.
- Have them set the table. Use multiplication to figure out how many utensils will be on the table.

  Example: If each of the four people at the table have a knife, fork and spoon, how many utensils are on the table? (4 x 3 = 12)
- If you put 7 dinner rolls on the table and each person has one, how many will be left over?

Mathematics mastery is all about being able to apply it to everyday life. Cooking is one of the best opportunities to achieve that mastery.

Positive Attitude

Never say things like, "Our family is just not good at math." Children are like sponges and will also adopt that attitude.

"Math is a phobia right up there with snakes, public speaking and heights" - Marilyn Burns

Math Tricks to Learn the Facts (Multiplication)

As the mathematics curriculum becomes more congested, teachers are relying more and more on parents to support children to learn their basics at home. There are many tricks to teach children multiplication facts in mathematics, here are just a few:

The 4 Times Quickie…

- Double-double the number you are multiplying four by. (Double it twice) e.g., 4 x 3 (Double 3 twice) 3 doubled is 6, 6 doubled is **12;** 4 x 6 (Double 6 twice) 6 doubled is 12, 12 doubled is **24**)
- Another way to figure the answer is double the answer you would get if you multiplied the number by 2 e.g., 4 x 3 (Double the 2 x 3 answer). The answer to 3 x 2 = **6.** Double the 6 to get **12;** 4 x 6 (Double the 2 x 6 answer). The answer to 2 x 6 = **12.** Double the 12 to get **24**

The 5 Times Quickie …

- If you can **count by fives**, this makes five times tables simple e.g., 3 x 5 would be 3 fives. Count by five to the third number. 5, 10, 15 (The answer is 15, because the third number, when you count by fives, is 15); 6 x 5 would be 6 fives. Count by fives to the sixth number. 5, 10, 15, 20, 25, 30 (The answer is 30)
- If you are multiplying five times an even number. Take half of the number and put a zero after it. (The FIVES are half way through the 0 - 9 multiplication facts. This helps you remember to take half of each number) e.g., 5 x 6 (6 is even), take half of 6 (**3**), add a zero – 3**0.** Another example 5 x 8, take half of 8 (**4**), add a zero and you get 4**0**
- If you are multiplying 5 times an odd number, subtract 1 from the number and halve the number. Then put a 5 after it. E.g., 5 x 7 (7 is odd), subtract one from 7 (**6**), take half of 6 (**3**), add a five – 3**5.** Another example 5 x 9, subtract one from 9 (**8**), take half of 8 (**4**), add a five – 4**5**

The 8 Times Quickie…

- Multiplying by 8 can be achieved by doubling three times e.g., Q. 742 x 8 =? A. 742 x 2 = 1484… 1484 x 2 = 2968… 2968 x 2 = 5936, The answer is **5936**

The 9 Times Quickie…

- Hold your hands in front of you with your fingers spread out e.g., 9 X 3 bend your third finger down. (9 X 4 would be the fourth finger etc.) You have 2 fingers in front of the bent finger and 7 after the bent finger. Thus the answer must be 27. This technique works for the 9 times tables up to 10.
- 9x8 you take the 8 and subtract 1. That gives you 7. Then you think 7+?=9 that would be 7+2=9. Then take off the +=9 and you get 72. 8x9=72. It works from 2x9 up to 9x9.
- Subtract one from the number you are multiplying by e.g., 9 x 5 (One less than 5 is **4**). The first number in the answer is 4. The two numbers that make up the answer will equal 9. So 4 + __ = 9 (**5**). The last number in the answer is 5. 9 x 5 = 45

The 10 Times Quickie…

- Just move the decimal one place to the right, or if you want think of it as stick a 0 in the ones place and push everything else over one place. 10x345= 3,450. It is true of any number and also works with 100; 1,000; 10,000 and so on. You just have to move the decimal as many places as there are zeros.

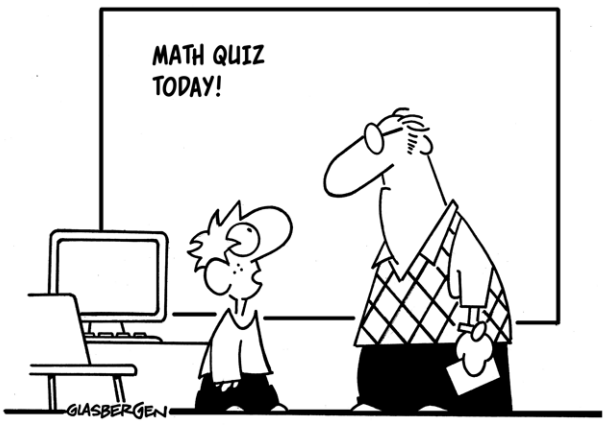
The 11 Times Quickie

- Use this strategy for two digit numbers only e.g., 11 x 18 =? Jot down 1 and 8 with a space between it. 1 -8, Add the 8 and the 1 and put that number in the middle: 198
- To multiply any number of two figures by 11 e.g., Q. What is 34 x 11 = ? A. Add the first and second digits... 3 + 4 = 7… Place the answer between the first and second digits… 374… The answer is 374.

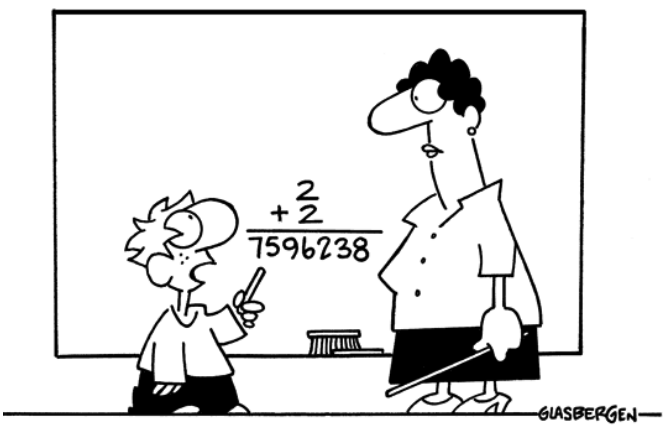
  When the sum of the first and second digits is more than 9, increase the left-hand number by the 1 to carry e.g., Q. What is 98 x 11 = ? A. Add the first and second digits... 9 + 8=17... Add 1 to 9 to get 10... Place the 7 between the 10 and 8… The answer is 1,078
- To multiply any number of three figures by 11: You add pairs of numbers next to each other, except for the numbers on the edges e.g., Q. What is 324 x 11 = ? A. Write down the first digit... 3... Add the first and second digits... 3 + 2 = 5... Add the second and third digits… 2 + 4 = 6... Write down the last digit… 4… The answer is 3564.
- To multiply any number of four figures by 11 e.g., Q. What is 3254×11 = ? A. Write down the first digit... 3... Add the first and second digits... 3 + 2 = 5... Add the second and third digits… 2 + 5 = 7... Add the third and fourth digits... 5 + 4 = 9... Write down the last digit… 4… The answer is 35794.

All of these tricks help the student to have some sort of strategy for getting an answer they don't remember. After a while they forget the tricks because they don't need them anymore. I also recommend knowing up to 12 x 12 because we use 12's in time and measurement in our culture. Parents are encouraged to try these techniques at home with their children.

*"If you think dogs can't count, try putting three dog biscuits in your pocket and then giving Fido only two of them" - **Phil Pastoret***



"Yes, I wrote the answers on my sleeve.
It's called dressing for success!"



"In an increasingly complex world, sometimes
old questions require new answers."

Hororata Primary School
Learning for our Future Since 1870

Timetables Challenge

To celebrate NZ Maths Week, we're running a **Timetables Challenge** at Hororata Primary School! The challenge is open to all Years 4-6 students and will focus on learning multiplication facts from 0 to 12.

The main event will take place on **Friday 15 August 2014**. Leading up to it, we encourage children and families to have fun practicing times tables using the tricks and activities in this booklet.

The best way to learn? **Repetition, repetition, repetition!** Let's work together to make learning times tables fun and effective.

Objective

The objective of the challenge is for children to identify as many incorrect answers as possible in 5 minutes (Example below).

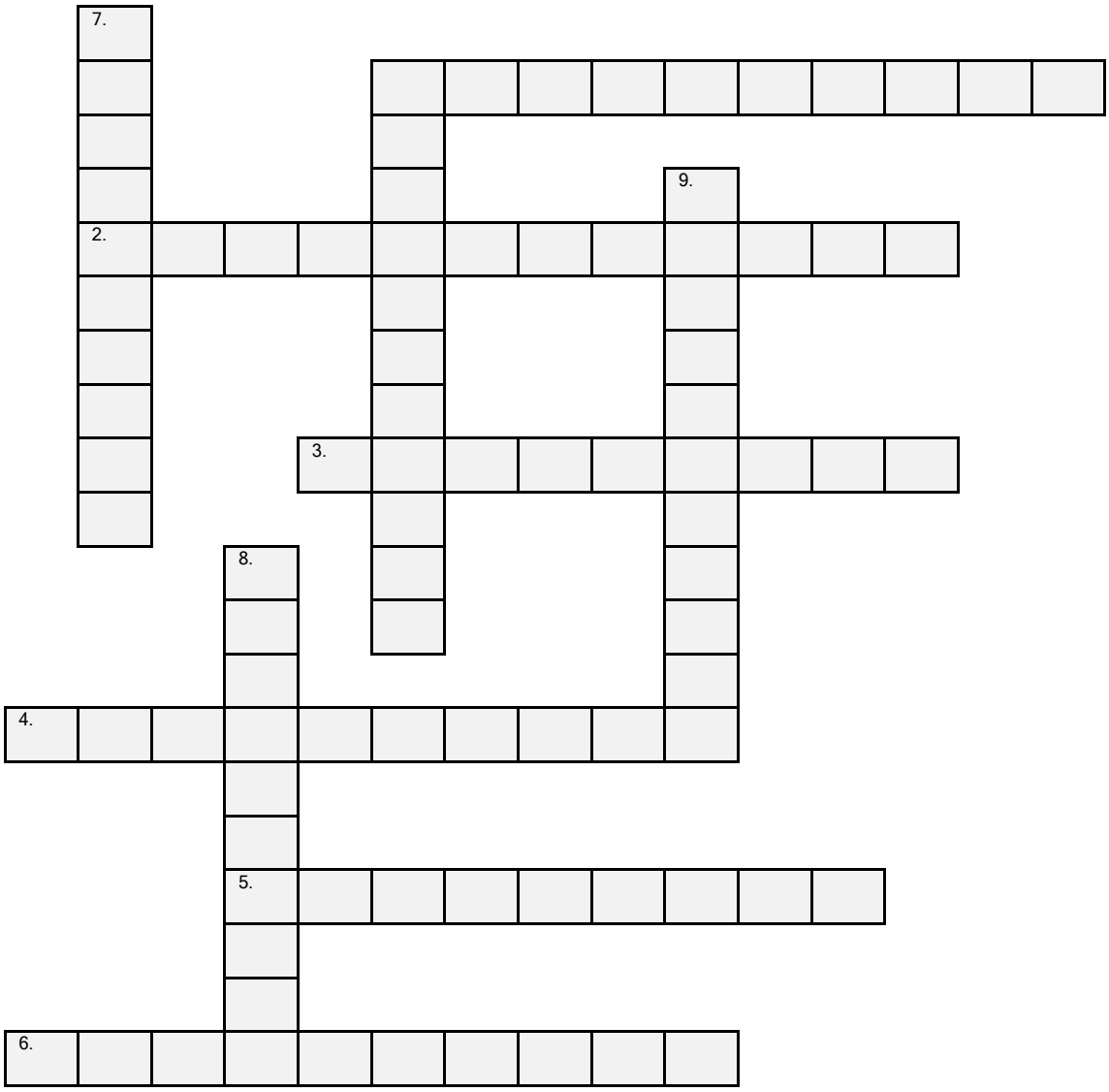
x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	13	12
2	2	4	6	7	10	12	14	14	18	20	23	24
3	3	6	9	12	15	19	21	22	27	30	33	36
4	4	~~9~~	12	16	21	25	28	30	36	40	43	48
5	5	10	15	20	25	31	35	41	45	40	55	62
6	6	12	18	24	30	36	40	48	55	50	66	72
7	7	14	22	28	35	42	49	56	65	70	77	86
8	8	16	24	32	42	48	56	65	75	90	88	98
9	9	18	27	35	45	54	63	72	81	90	99	108
10	10	20	30	42	50	60	71	80	90	100	110	120
11	11	22	33	44	55	66	75	89	99	110	121	132
12	12	24	36	48	62	72	86	96	108	120	132	144

Competition Rules

1. A maximum of two minutes will be allowed for this challenge.
2. Put a cross in the squares with incorrect answers (see above)
3. All answers must be recorded in pencil.

Practice Time

1. Crossword Puzzle Math: Mixed Multiplication



Across

1. NINE x SIX
2. FOUR x SEVEN
3. SEVEN x EIGHT
4. SEVEN x SEVEN
5. SEVEN x SIX
6. SIX x SIX

Down

1. EIGHT x SIX
7. EIGHT x FOUR
8. EIGHT x EIGHT
9. NINE x SEVEN

Word Bank

FIFTY-FOUR, FIFTY-SIX, FORTY-EIGHT, FORTY-NINE, FORTY-TWO, SIXTY-FOUR, SIXTY-THREE, THIRTY-TWO, THIRTY-SIX, TWENTY-EIGHT

2. Fill in the Blanks

1	2		4	5	6	7	8	9	10
11	12	13	14	15				19	20
21	22	23	24	25	26	27	28	29	30
31				35	36	37	38	39	40
41	42	43		45		47		49	50
	52	53	54	55	56	57	58	59	
61	62	63	64	65		67			
71			74			77			80
							88	89	90
91		93		95		97		99	

3. Speed Without Accuracy is Wasted

Proof-read the following equations and check them to see if they are correct. If the answer is correct, give it a tick in the answer box. If it is incorrect overwrite the correct answer in the box.

1	+	6	=	7
2	+	5	=	8
3	+	4	=	6
4	+	3	=	7
5	+	2	=	8
6	+	1	=	5

6	-	5	=	2
9	-	3	=	5
10	-	10	=	0
7	-	5	=	2
12	-	10	=	2
16	-	7	=	8

7	x	3	=	21
4	x	5	=	19
3	x	2	=	6
9	x	7	=	54
12	x	3	=	35
7	x	5	=	35

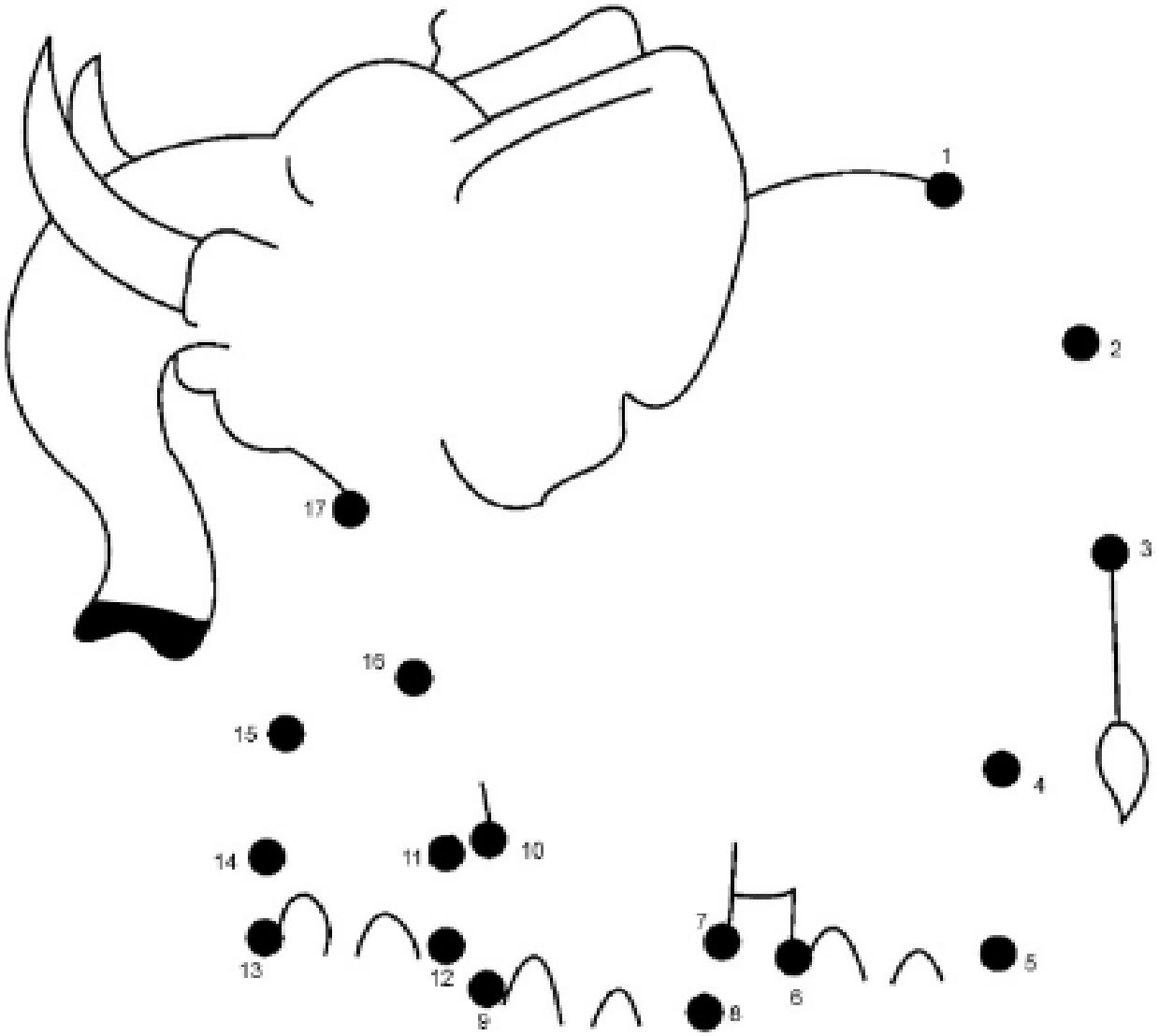
9	÷	3	=	3
12	÷	3	=	4
15	÷	5	=	4
8	÷	8	=	2
10	÷	5	=	2
24	÷	12	=	3

4. Deck 'Em!

- Use a deck of playing cards for a game of Multiplication War.
- Initially, children may need the Tables Grid to become quick at the answers.
- Flip over the cards as though you are playing Snap.
- The first one to say the fact based on the cards turned over (a four and a five = Say "20") gets the cards.
- The person to get all of the cards wins!
- Children learn their facts much more quickly when playing this game on a regular basis.

5. Dot ^{2} Dot

Join the dots on the picture below. When you have finished colour the picture in.



6. Numbers to Ten Word Search

Find the following numbers in the word find:

Eight - One - Three - Five

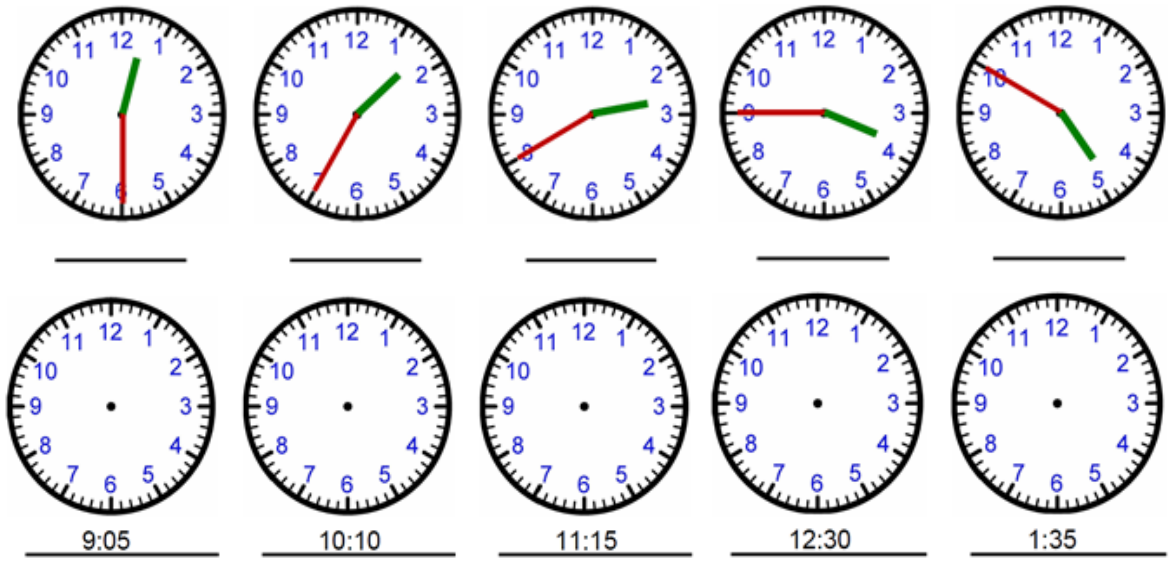
Seven - Two - Four - Six

Zero - Nine - Ten

S	F	A	O	X	N	J	Z
S	O	W	N	S	I	S	T
F	U	H	E	I	N	E	H
I	R	U	G	X	E	V	R
V	E	I	G	H	T	E	E
E	L	I	O	A	E	N	E
T	W	O	V	U	N	K	B
T	P	S	Z	E	R	O	S

7. What's the Time?

Write in the time in words and draw the hands on the clock.



8. Learning Languages...

Solve the following Maori numbers problems

A. Fill in the blanks

Maori

Tahi		Toru		Rima
Ono	Whitu		Iwa	Tekau

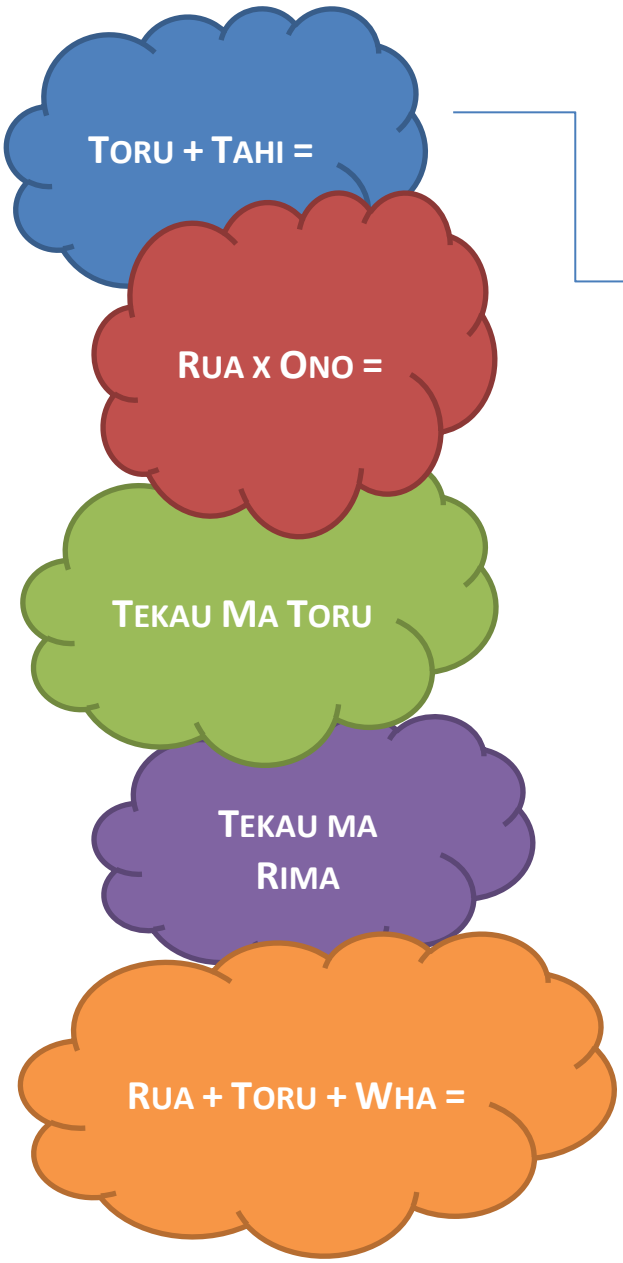
Filipino

Isa	Dalawaua		Apat	Lima
Anim		Walo	Siyam	

Spanish

	Dos	Tres	Cuatro	
Seis	Siete		Nueve	Diez

B. Pair the Maori words with the number pictures



T	E	K	A	U		M	A	
R	U	A						

W	H	A

T	H	I	R	T	E	E	N	

T	E	N	+	F	I	V	E	=

I	W	A

F	I	F	T	E	E	N

9. Shape Up or Ship Out!

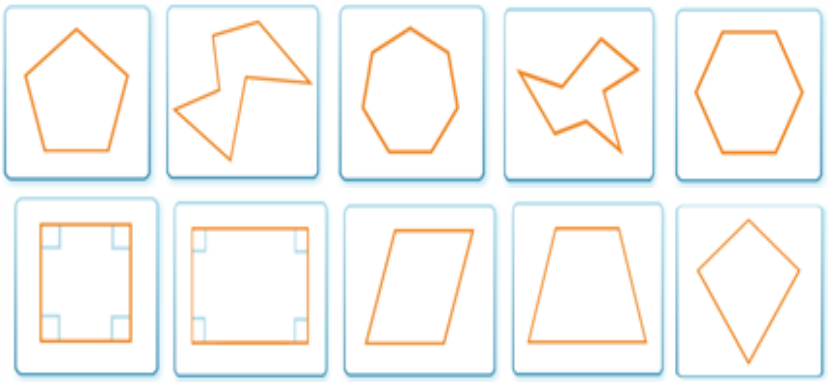
Name the following shapes...

Polygons are shapes with many straight sides.

Quadrilaterals have four sides and four angles.

Colour in the

Quadrilaterals



10. Colour by Numbers

1 - Blue 2 - Red 3 - Silver 4 - Gold
5 - Yellow 6 - White 7 - Black 8 - Brown