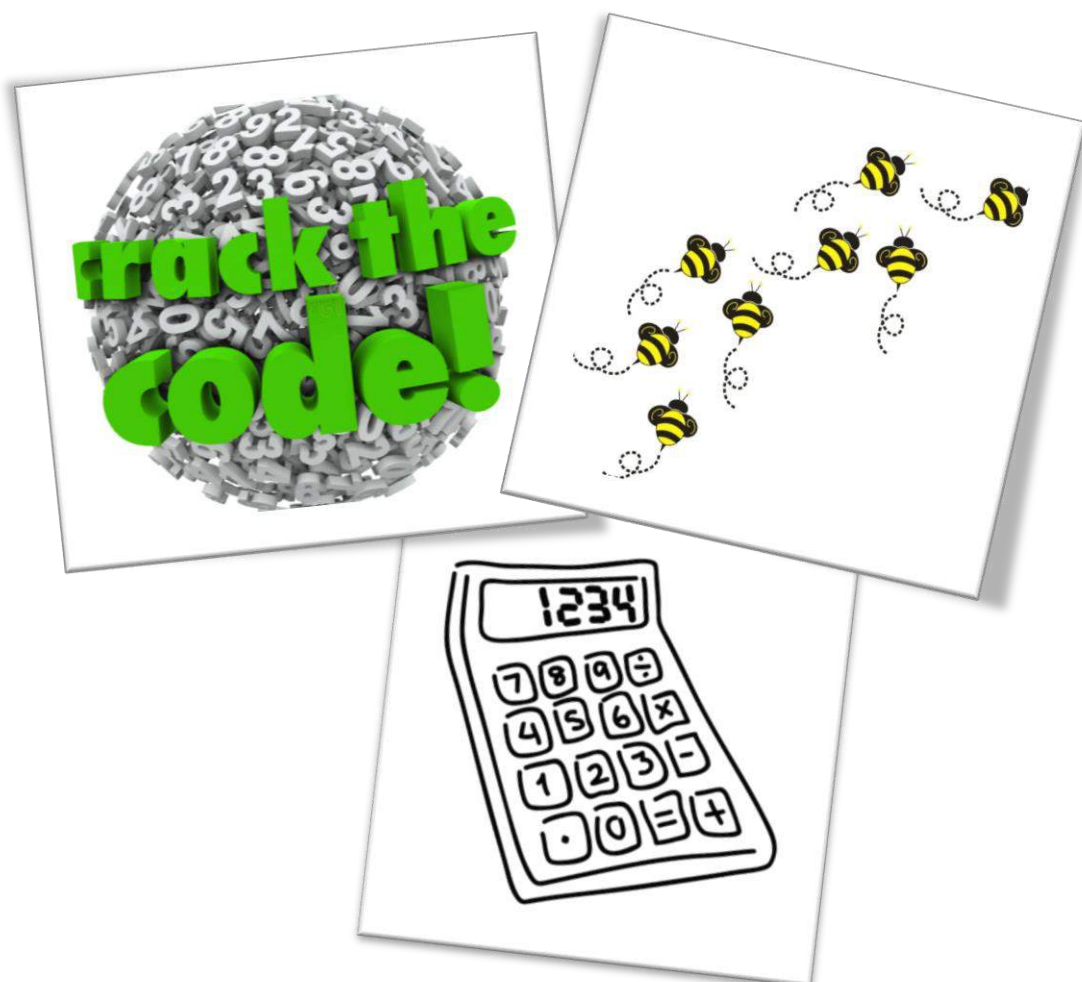


# ftit KULJUM

## matematika għal kulhadd

Tasks for Year 5 and Year 6



SCIENCE CENTRE  
PEMBROKE MALTA



MINISTRY FOR EDUCATION AND EMPLOYMENT  
DIRECTORATE FOR LEARNING AND ASSESSMENT PROGRAMMES

## Age Old Problem

Find the ages of the Jones family members and fill in the family tree.

Nobody is aged over 100, so a 100-grid number is a useful resource.

1. Sam was married when he was 22 years old.

He lives at 115, George Bush Street.

His age is a multiple of both 5 and 7 but not a multiple of 2.

2. Sam's wife, Felicia came 91<sup>st</sup> in the Malta marathon.

She is older than Sam and her age is a prime number.

The digits of her age total 5.

*Note: A prime number is a whole number greater than 1 whose only factors are 1 and itself*

*e.g. 7, 11, 13...*

3. Jim is their oldest child.

He eats baked beans at breakfast.

His age is a square number – it is a one digit number.

4. Jim's sister Sarah has 4 rabbits.

Her age is a factor of 54, 72 and 84.

When Sarah is three times as old as she is now, the digits of her age will add up to 9.

5. Sam and Felicia's youngest child Henry is fair.

He has blue eyes and curly hair.

His age is half the age of Sarah and  $\frac{1}{3}$  the age of Jim.

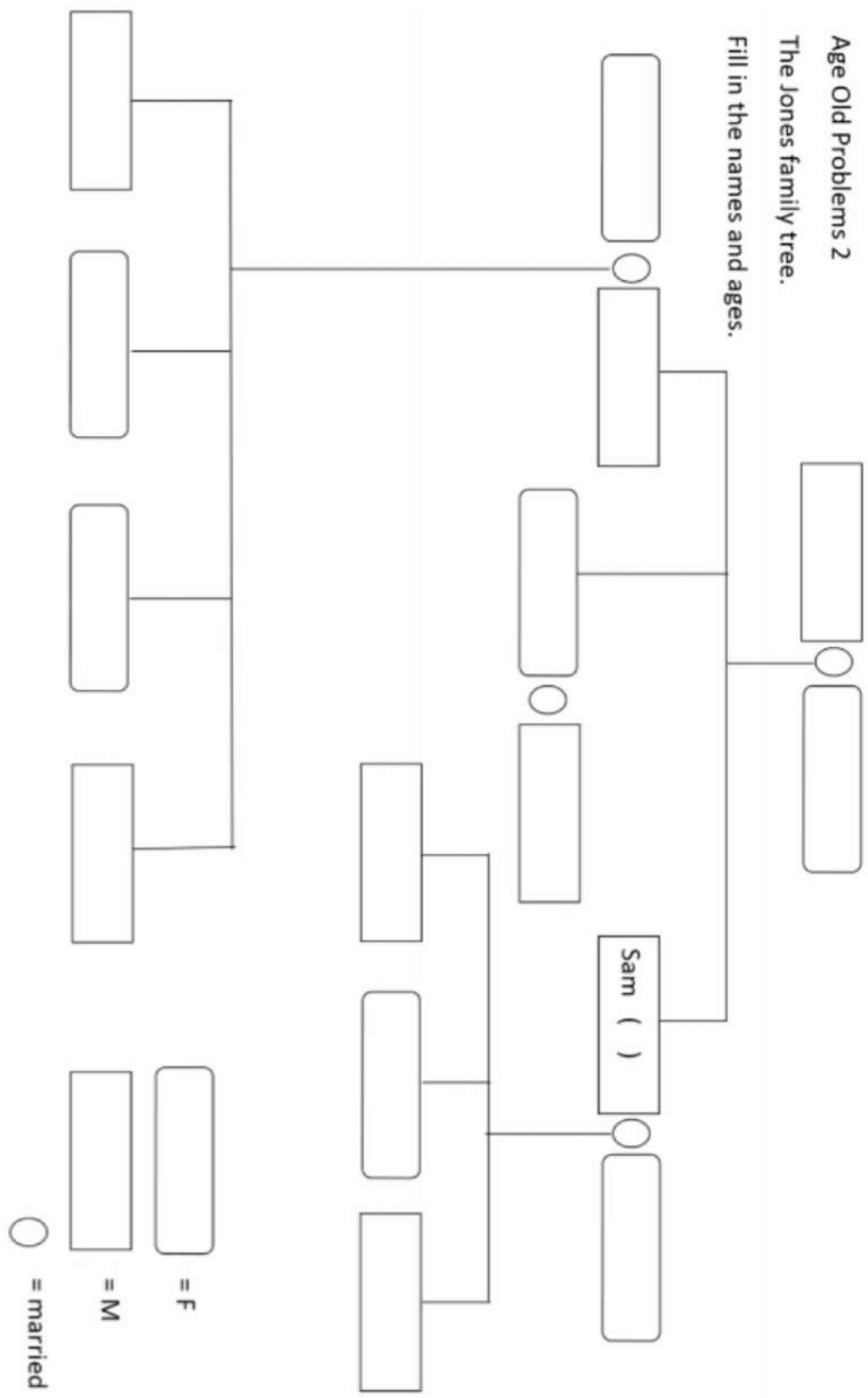
6. Sam's father Cyril is in his 70s.  
His age is a multiple of 24.  
He retired from his last job when he was 65.
7. Cyril's wife Ruth is younger than Cyril.  
She retired from her job when she was 59.  
The difference between the 2 digits of her age is 6. Her age is an odd number.
8. Cyril and Ruth have a daughter called Avis.  
She loves clothes and spends most of her money in shoes.  
Her age is a square number.  
The second digit is twice the first digit.
9. Brian is Avis brother.  
His age is 4 less than half of Cyril's age.  
He started his latest job as a traffic warden when he was 22.
10. Brian's wife, Samantha is older than Brian.  
She started working when she was 24.  
Her age is a multiple of 7.  
The difference between the digits of her age is 2.  
Her age is an even number.
11. Brian's oldest son, Cameron has 25 stick insects.  
His age is a factor of 48 and 60.  
He is at secondary school.

12. Cameron's sister, India has 72 songs on her mobile phone.  
Her age is between 10 and 15.  
If her age is multiplied by one of its 2 digits, the answer is 39.
13. India's sister, Jane scored 76% on her latest Maths test.  
She is  $\frac{1}{4}$  of her father's age.
14. Brian and Samantha's youngest child, Simon goes to Summerville Primary School.  
His age is a factor of his mother's age.  
It is not a prime number.
15. Avis recently married Marvin.  
Marvin is due to retire when he is 60.  
When he is twice his current age, he will be 80.

### Age Old Problems 2

The Jones family tree.

Fill in the names and ages.



## CRACK THE CODE

In this puzzle the numbers 1 to 26 have been replaced by different letters of the alphabet.

The calculations below will enable you to crack the code.

The letter T does not appear in these sums but you can still, by elimination determine its value.

$C = Q \times C$	$D \times D \times D = G$
$K = F + L$	$L = 3 \times F$
$S = G - F$	$F \times F = 9 \times Q$
$I = D \times D$	$R = (A \div I) + J$
$S \times D = U$	$G + S = J$
$Q + F + D = Z$	$H \div Q = H$
$C = D \times D \times D - 1$	$D \times D = K \div F$
$C \times D = M$	$I \times I = A$
$M + L = W$	$(M \times D) - D = O$
$A + S = V$	$G \times F = X$
$Z \times F = N$	$U + 1 = E$
$H = P - 1$	$B = U + S$
$X + Q = Y$	$(F \times C) - D = H$

Hints:

1. (Multiplication property) The answer of any number multiplied by 'one' is the same number. Look for 'one'.
2. There are only 5 square numbers from 1 to 26.
























CODE ANSWER TABLE

A	B	C	D	E	F	G	H	I	J	K	L	M

N	O	P	Q	R	S	T	U	V	W	X	Y	Z

## BEES AND FLOWERS

Where are the bumble bees hiding?

	3	2	1	2	2	3	0	3	0	4
4										
1										
3										
0										
3										
2										
3										
1										
1										
2										

### Remember:

- Each flower attracts only one bee, horizontally or vertically.
- No bees can occupy a space next to one another, in any direction.
- The number of bees which appears in each row and column is indicated by the number value written at the end of each row and column.

One bee has been placed for you to start you off.



# Maths with Super M



Super M's calculator is broken.

## Investigation 1

Unfortunately, none of the buttons work, except for the buttons below.

3	5	+	-	=
---	---	---	---	---

- a. Can you help SuperM make all the numbers from 1 to 20 using his broken calculator?

**Example:** SuperM can make 11 by using  $3 + 3 + 5 = 11$

- b. Can you find different answers for the numbers?  
c. Can you make more answers for more numbers?

## Investigation 2

Using only these buttons make the numbers below.

3	7	+	-	=
---	---	---	---	---

a. 20

b. 57

c. 93

## Investigation 3

On another calculator, the 

0
---

 button is **malfunctioning**.

Can you make 260, 206 and 2062 using any key **BUT NOT** the 

0
---

 button?

### Investigation 4

SuperM tries to fix his calculator. He fixed some buttons but broke another one. Now the **1** button on the calculator is not working.

Find the answers and show how you worked it out

a.  $32 + 15 =$

b.  $182 + 26 =$

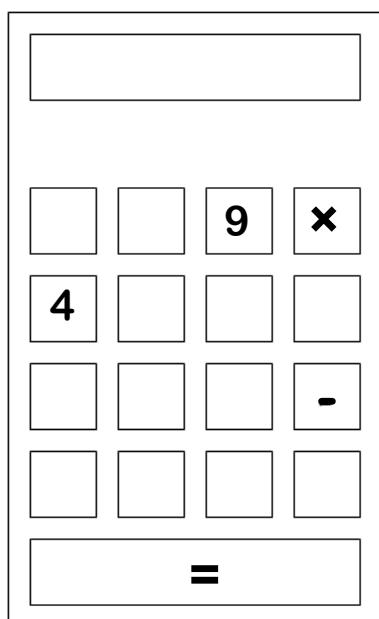
c.  $125 - 18 =$

d.  $52 \times 10 =$

e.  $35 \times 12 =$

f.  $1162 - 213 =$

### Investigation 5



This is SuperM's calculator showing the keys he can use.

What numbers up to 100, can you make using only these five buttons?

## Possible Triangles!

Tick ✓ the correct box.

	Statement	Always	Sometimes	Never
1.	Triangles have <b>three sides</b> .			
2.	Triangles have <b>4 vertices</b> (corners).			
3.	Every triangle has <b>3 equal sides</b> .			
4.	Every triangle has <b>two equal sides</b> .			
5.	Triangles have <b>two acute angles</b> .			
6.	Triangles have <b>two obtuse angles</b> .			
7.	Triangles have <b>two parallel lines</b> .			
9.	Triangles have <b>one right angle</b> .			
10.	Triangles have <b>two right angles</b> .			

- a) Choose one or two of the statements and draw triangles to prove your answer.
- b) Do you know any more facts about triangles?  
Write them down in a list.

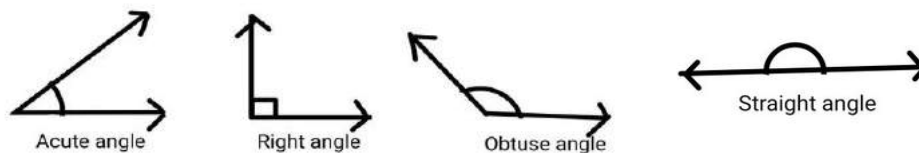
## Note

A **right angle** is equal to  $90^\circ$ .

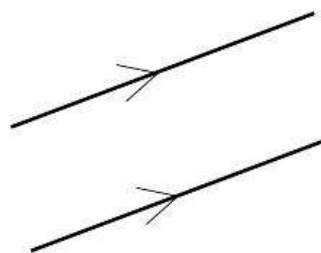
An **acute angle** is an angle smaller than  $90^\circ$ .

An **obtuse angle** is an angle bigger than a right angle  $90^\circ$ , but smaller than  $180^\circ$ .

$180^\circ$  is a **straight line**.



**Parallel lines** are lines that are always the same distance apart and never intersect (touch).



Answers for all tasks available on <https://primarymaths.skola.edu.mt/ftit-kuljum/>.