

Second Level Maths Tasks

Week beginning 1.2.2021

Maths Homework Options

To keep your mental maths up to scratch, keep working through your maths options sheets.

Frequent practise stops skills getting rusty.

10-15 minutes during each maths session will help your number work.

What is the number?

The number has six digits.

The ten thousands digit is $\frac{1}{4}$ of the thousands digit.

The ones digit is a multiple of both 3 and 9 but less than 18.

The hundreds digit is the same as $146 - 139$.

The thousands digit is 4 less than a dozen.

The tens digit is the same as of the number of months in a year.

The hundred thousands is the square root of 1.

Algebra—substitution

Last week of new algebra learning for a little while—I've put a PowerPoint explaining "substitution" next to this grid.

Name the planet

Make sure you have looked at the PowerPoint on substitution first. Then have a go at the worksheet on page 3.

Sudoku

6	5	9		1		2	8
1				5		3	
2			8				1
			1	3	5	7	
8			9				2
	3		7	8	6	4	
3	2			9			4
				1	8		
	8	7	6				

Have a go at the sudokus on page 4 if your brain needs a break from algebra!

5-a-day

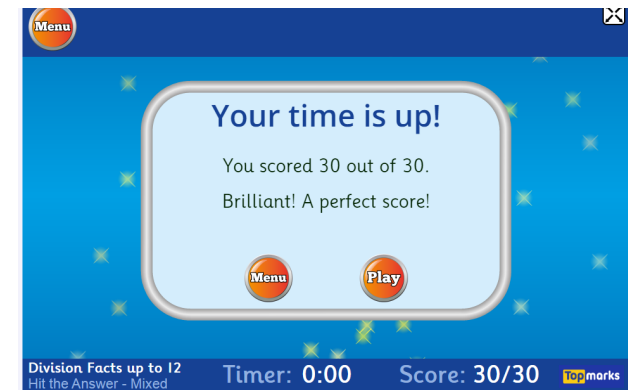
I've put some number problems on the next sheet, you can choose 5 each day to work on like we would in class.

Remember to choose a level that is challenging enough for you.

Hit the Button

I played Hit the Button on Topmarks this week to practise my division. I tried with mixed division questions and my best score was 30.

Try and beat me.



5-a-day

Choose a level of challenge, choose a row to do each day

Mild

- $3526 + 3366$ $8370 - 3647$ 4758×5 $460 \div 5$ $7 \times 7 > 6 \times 8$, true or false?
- $7726 + 6473$ $7394 - 3443$ 364×7 $564 \div 6$ $557, 507, 457, \underline{\quad}, \underline{\quad}$
- $6372 + 1076$ $4775 - 2937$ 630×9 $744 \div 8$ $12 + 16 < 4 \times 7$, true or false?

Medium

- $64.364 + 364.88$ $3467.3 - 774.4$ 3.48×8 $523.2 \div 6$ $250, 500, 750, \underline{\quad}, \underline{\quad}$
- $4.656 + 33.48$ $736.5 - 34.53$ 4673.4×6 $654.5 \div 7$ $2500, 5000, 7500, \underline{\quad}, \underline{\quad}$
- $463.88 + 4.6374$ $467.5 - 47.84$ 747.3×7 $534.4 \div 8$ 50% of £15?

Spicy

- $75.5 + 882.23 + 2.983$ $79.8 - 4.234$ 66×25 $5490 \div 8$ Which is biggest $\frac{1}{3}$ 0.2 40%
- $983.3 + 6782.7 + 3.784$ $678 - 2.747$ 73×28 $7382 \div 4$ $4x + 7 = 47$, $x = ?$
- $8.67 + 7273.9 + 26.6$ $837 - 2.838$ 53×43 $37.9 \div 2$ $1.04, 1.08, 1.12, \underline{\quad}, \underline{\quad}$

Name the Planet (or Moon)

For each clue, substitute in the values from the table and work out the answer. You will then need to change the answer back into a letter to unscramble the name of a planet or moon.

a	b	c	d	e	f	g	h	i	j	k	l	m
50	48	45	42	40	36	35	32	30	28	25	1	21
n	o	p	q	r	s	t	u	v	w	x	y	z
20	18	16	15	12	10	8	7	6	5	4	3	2

Example

$$\text{Clue 1} = g + q \quad \text{Clue 2} = j - p \quad \text{Clue 3} = 3u \quad \text{Clue 4} = \frac{a}{w}$$

Solution

$$\text{Clue 1} \quad g + q = 35 + 15 = 50 = a$$

$$\text{Clue 2} \quad j - p = 28 - 16 = 12 = r$$

$$\text{Clue 3} \quad 3u = 3 \times u = 3 \times 7 = 21 = m$$

$$\text{Clue 4} \quad \frac{a}{w} = a \div w = 50 \div 5 = 10 = s$$

Unscrambling gives MARS

Unscramble these planets or moons

$$1) \quad \text{Clue 1} = w + y \quad \text{Clue 2} = i - r \\ \text{Clue 3} = 2t \quad \text{Clue 4} = \frac{j}{x}$$

$$\text{Clue 5} = b - c - z$$

$$2) \quad \text{Clue 1} = 2w \quad \text{Clue 2} = q - t \\ \text{Clue 3} = 2s \quad \text{Clue 4} = 2k$$

$$\text{Clue 5} = 6z \quad \text{Clue 6} = 2w - z$$

$$3) \quad \text{Clue 1} = 4s \quad \text{Clue 2} = \frac{d}{u} \\ \text{Clue 3} = \frac{d}{v} \quad \text{Clue 4} = sz$$

$$\text{Clue 5} = zw$$

$$4) \quad \text{Clue 1} = \frac{h}{z} \quad \text{Clue 2} = 2y + 1 \\ \text{Clue 3} = 2r - x \quad \text{Clue 4} = 2u - v$$

$$\text{Clue 5} = zi - n \quad \text{Clue 6} = xr - t \\ \text{Clue 7} = a \div k \times s$$

Now make up your own clues needed to spell different planets or moons.

Fill in the puzzle so that every row across, every column down and every 3 by 3 box contains the numbers 1 to 9.

Medium Puzzle 1

6	5	9		1		2	8	
1				5			3	
2			8				1	
			1	3	5		7	
8			9					2
		3		7	8	6	4	
3		2			9			4
					1	8		
		8	7	6				

Fill in the puzzle so that every row across, every column down and every 3 by 3 box contains the numbers 1 to 9.

Hard Puzzle 1

								2
						9	4	
		3						5
	9	2	3		5		7	4
8	4							
	6	7		9	8			
			7		6			
			9				2	
4		8	5			3	6	