

Second Level Maths Tasks

Week beginning 22.2.2021

Maths Homework Options

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

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

Mystery Numbers

-I am a number less than 40. One of my factors is 7. The sum of my digits is 8. What am I?

-I am a number less than 100. Two of my factors are 3 and 5. My digits are 1 apart. What am I?

-I am a number less than 60. Two of my factors are 2 and 7. I am a common multiple of 8 and 14. What am I?

-I am a 2-digit number greater than 50. One of my factors is 8, and I myself am a factor of 360. The difference between my digits is 5. What am I?

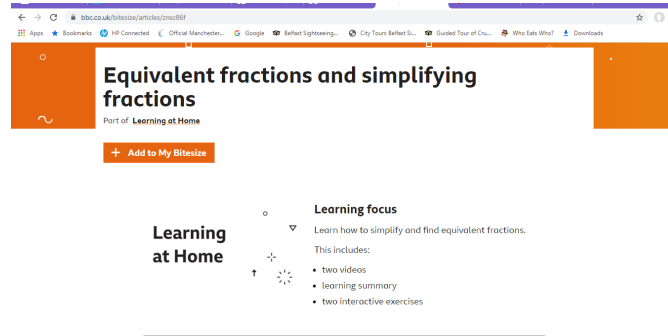
Fractions and Percentages week 1

This week we will be looking at...

1. Finding equivalent fractions using common multiples.

Start by looking at this page on BBC bitesize, down as far as the video called “

<https://www.bbc.co.uk/bitesize/articles/znsc86f>



Now try the tasks I've set on page 3.

2. Simplifying fractions using common factors.

Go back to the bitesize page, and start at “Simplifying Fractions”. Read, and then watch the video.

Try the online activities at the end of the page, and then look at my task on page 4.

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 challenge yourself!

Sudoku

A few of you seemed to quite enjoy the Sudoku I put up a couple of weeks ago so there are another 2 on page 5.

Sumdog

I've set another challenge—answer 250 questions to earn yourself 250 coins. I've set your skills to work on comparing and simplifying fractions. You'll also find a lot of times tables questions—if we are going to be doing fractions and percentages, they will be coming in very handy, so best get practising!!



5-a-day

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

Mild

- $3645 + 9937$ $5002 - 2731$ 6353×4 $465 \div 5$ $1/2$ of 48
- $6829 + 6253$ $9800 - 1263$ 543×3 $175 \div 7$ 108, 118, 128, ____, ____
- $7026 + 3545$ $8144 - 6102$ 723×6 $405 \div 3$ $7 \times _ = 42$

Medium

- $63.551 + 900.2$ $3645.3 - 746.2$ 7.41×7 $196.6 \div 6$ 1250, 1500, 1750, ____, ____
- $8.348 + 67.25$ $878.19 - 36.27$ 6147.4×9 $475.2 \div 9$ 3.5, 3.6, 3.7, ____, ____
- $746.21 + 198.34$ $504.5 - 84.27$ 627.1×8 $467.6 \div 7$ 20% of 40?

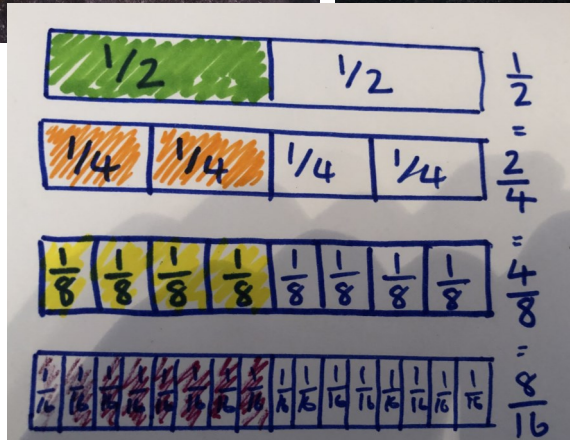
Spicy

- $63.7 + 848.12 + 9.089$ $64.2 - 8.934$ 65×33 $219.132 \div 6$ Which is biggest 1.554, 4, 1.49
- $374.8 + 8364.7 + 1.633$ $6564 - 2009$ 71×28 $5000 \div 8$ $2x - 3 = 15$, $x = ?$
- $7.21 + 4733.2 + 87.6$ $354 - 8.121$ 45×56 $844.659 \div 9$ 20% of 450

Equivalent Fractions

Concrete/Pictorial

Can you use real objects or drawings to show find equivalent fractions? Here I have used pasta, a fraction wall with card and a bar model to show fractions that are the same as $\frac{1}{2}$.

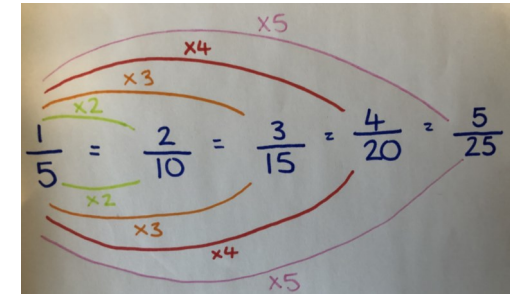
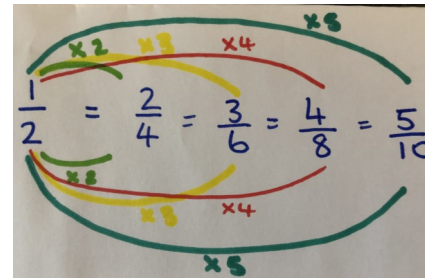


Use objects or diagrams to show fractions equivalent to...

- a) $\frac{1}{3}$ b) $\frac{1}{4}$ c) $\frac{1}{5}$ d) 1 whole

Abstract

You can find equivalent fractions by using **common multiples**—that just means multiplying the numerator and the denominator by the same **number**.



Can you use this method to find 5 fractions equivalent to...

- a) $\frac{1}{3}$ b) $\frac{1}{6}$ c) $\frac{1}{10}$ d) $\frac{1}{8}$
 e) $\frac{2}{3}$ f) $\frac{3}{5}$ g) $\frac{2}{7}$ h) $\frac{4}{9}$

Simplifying Fractions

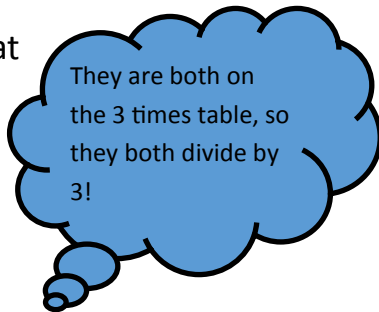
As you should now know from the Bitesize page, we **simplify fractions** by dividing the top (numerator) and bottom (denominator) by the **same number**.

When you can't simplify it any lower, it is called the **simplest form**.

(You will need to think about **common factors** when you are looking for a number to divide the top and bottom of the fraction).

Example... simplify $9/12$

...think about what numbers **both** 9 and 12 divide by



...divide both the numerator and the denominator by your chosen number.

Divide the top and bottom of these fractions by 3 to simplify

- a) $3/6$ b) $6/15$ c) $21/24$ d) $15/27$

Divide the top and bottom of these fractions by 4 to simplify

- a) $8/12$ b) $12/16$ c) $4/20$ d) $20/24$

Divide the top and bottom of these fractions by 5 to simplify

- a) $5/15$ b) $10/25$ c) $45/80$ d) $45/55$

Divide the numerator and denominator by a number to simplify

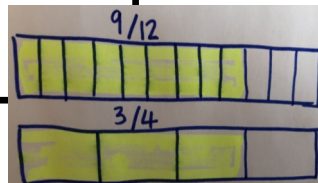
- a) $6/12$ b) $5/25$ c) $7/21$ d) $8/24$
e) $12/30$ f) $28/35$ g) $9/15$ h) $7/35$

Write these in their **simplest form**

- a) $28/49$ b) $16/48$ c) $24/42$ d) $75/100$
e) $25/105$ f) $20/80$ g) $27/90$ h) $14/84$
i) $27/36$ j) $80/100$ k) $45/90$ l) $30/72$

$$\frac{9}{12} = \frac{3}{4}$$

You can use the bar method to check your work →



Sudoku

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

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