

Second Level Maths Tasks

Week beginning 1.3.2021

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.

Decimals Jeopardy

http://www.math-play.com/Decimals-Jeopardy/decimals-jeopardy-game_html5.html



Decimals Jeopardy

Play in teams or on your own against the clock. The questions on this quiz involve the addition, subtraction and multiplication of decimals. Suitable for 10 - 12 year olds.

Keep working on your addition and subtraction of decimals—remember it help to think it terms of money—units are pounds, tenths are 10ps, hundredths are 1ps.

Play this decimals game on Topmarks to mix up your practise and keep skills sharp.

Fractions and Percentages week 2

This week we will be looking at...

...*finding fractions of a quantity*

Watch: BBC Bitesize clip—

<https://www.bbc.co.uk/bitesize/clips/zs7g4wx>

Remember when we are finding a fraction of anything, we are **dividing** it by the **denominator** (the number at the bottom of the fraction).

So to find a half ($1/2$) we divide by 2.

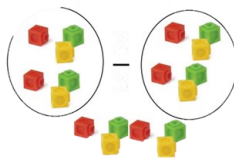
To find a quarter ($1/4$) we divide by 4.

To find a third ($1/3$) we divide by 3.

To find a tenth ($1/10$) we divide by 10.

(You get the idea).

Concrete



Pictorial



Abstract

$$\frac{2}{3} \text{ of } \pounds 18$$

$$\pounds 18 \div 3 = \pounds 6$$

$$\pounds 6 \times 2 = \pounds 12$$

Have a look at finding fractions of a quantity examples and problems to solve

Page 3— find unit fractions

Page 4—finding non-unit fractions

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!

Extreme dot to dots

I can't take credit for these, Miss Dale found them—have a look at the extreme dot to dots next to this grid on the blog.

Fractions Think Board

I have put an example of a think board on page 5.

Can you copy the layout and make on for:

$1/2$

$2/3$

$1/4$

$3/5$

$1/10$

$7/9$

5-a-day

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

Mild

- $6454 + 2435$ $9374 - 4736$ 3794×3 $675 \div 5$ $1/4$ of 12
- $4875 + 2834$ $7274 - 6364$ 903×5 $868 \div 7$ 270, 250, 230, ____, ____
- $7465 + 1163$ $6454 - 3049$ 875×4 $1563 \div 3$ $3 \times _ = 27$

Medium

- $84.44 + 875.9$ $4658.9 - 1625.94$ 5.37×6 $316.8 \div 6$ 1400, 1100, 800, ____, ____
- $9.973 + 83.22$ $8457.48 - 4634.9$ 756.4×7 $8867.7 \div 9$ 10.5, 10.7, 10.9, ____, ____
- $374.44 + 848.93$ $378.4 - 74.34$ 785.9×8 $741.3 \div 7$ 10% of 90?

Spicy

- $578.5 + 86.34 + 1.486$ $47.5 - 2.957$ 56×34 $542 \div 8$ Which is biggest 2.7, 2.19, 2.097
- $374.8 + 8364.7 + 1.633$ $6564 - 2009$ 71×28 $217.35 \div 6$ $4x + 5 = 21$, $x = ?$
- $7.21 + 4733.2 + 87.6$ $354 - 8.121$ 45×56 $496 \div 7$ 25% of 1200

Finding unit fractions of a quantity (a fraction where the numerator is 1)

Concrete

Can you use real objects to help you find a unit fraction of a quantity?

Example— $\frac{1}{3}$ of 27



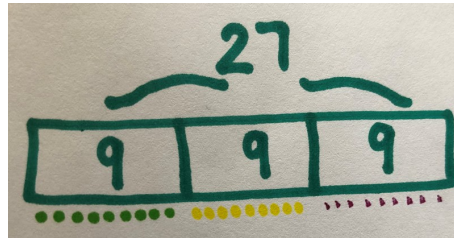
Example— $\frac{1}{6}$ of 36



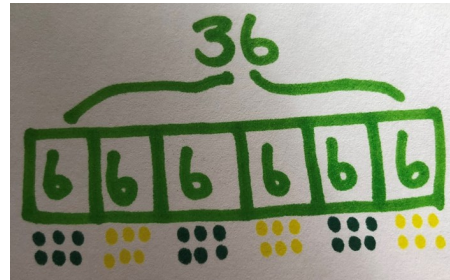
Pictorial

Can you use a diagram like the bar method to help you find a fraction?

Example— $\frac{1}{3}$ of 27



Example— $\frac{1}{6}$ of 36



Abstract

Can you use your knowledge of division to find a fraction of a quantity?

$$\begin{aligned} & \frac{1}{3} \text{ of } 27 \\ &= 27 \div 3 \\ &= 9 \end{aligned}$$

$$\begin{aligned} & \frac{1}{6} \text{ of } 36 \\ &= 36 \div 6 \\ &= 6 \end{aligned}$$

Use your preferred method to find:

- $\frac{1}{2}$ of 22 $\frac{1}{4}$ of 16 $\frac{1}{3}$ of 18 $\frac{1}{5}$ of 50 $\frac{1}{10}$ of 90 $\frac{1}{7}$ of 49 $\frac{1}{4}$ of 52 $\frac{1}{8}$ of 24 $\frac{1}{6}$ of 24
 $\frac{1}{3}$ of 21 $\frac{1}{9}$ of 36 $\frac{1}{5}$ of 45 $\frac{1}{7}$ of 35 $\frac{1}{2}$ of 30 $\frac{1}{4}$ of 28 $\frac{1}{10}$ of 20 $\frac{1}{6}$ of 30

Trickier:

- $\frac{1}{6}$ of 120 $\frac{1}{8}$ of 160 $\frac{1}{3}$ of 156 $\frac{1}{4}$ of 368 $\frac{1}{5}$ of 315 $\frac{1}{6}$ of 1920 $\frac{1}{7}$ of 1680
 $\frac{1}{20}$ of 820 $\frac{1}{15}$ of 4500 $\frac{1}{11}$ of 44 $\frac{1}{11}$ of 1221 $\frac{1}{30}$ of 690

Finding non-unit fractions of a quantity (a fraction where the numerator isn't 1)

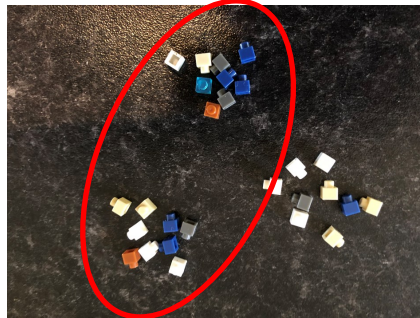
Concrete

Can you use real objects to help you find a fraction of a quantity?

Example—

$\frac{2}{3}$ of 27

=18



Example—

$\frac{4}{6}$ of 36

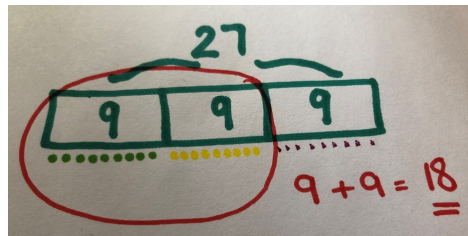
=24



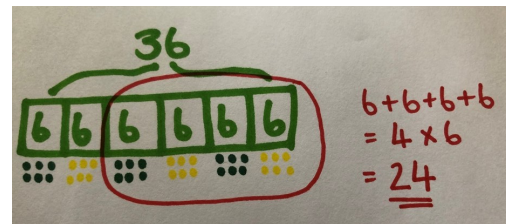
Pictorial

Can you use a diagram like the bar method to help you find a fraction?

Example— $\frac{2}{3}$ of 27



Example— $\frac{4}{6}$ of 36



Abstract

Can you use your knowledge of division to find a non-unit fraction of a quantity?

First, divide by the denominator. Then, multiply your answer by the numerator.

$$\frac{2}{3} \text{ of } 27$$

$$\frac{1}{3} \text{ of } 27 = 9$$

$$2 \times 9 = \underline{\underline{18}}$$

$$\frac{4}{6} \text{ of } 36$$

$$\frac{1}{6} \text{ of } 36 = 6$$

$$4 \times 6 = \underline{\underline{24}}$$

Use your preferred method to find:

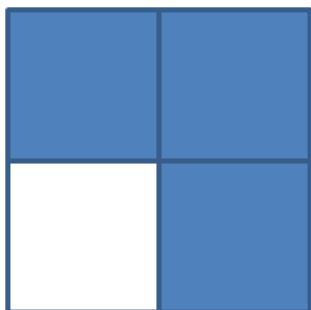
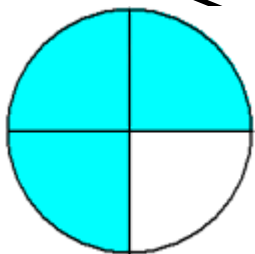
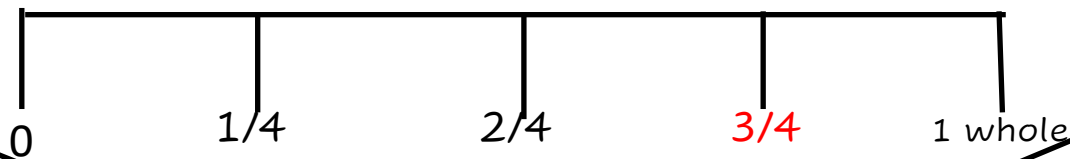
- | | | | | | | |
|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|----------------------|
| $\frac{3}{4}$ of 24 | $\frac{2}{3}$ of 21 | $\frac{5}{8}$ of 16 | $\frac{2}{3}$ of 18 | $\frac{3}{5}$ of 30 | $\frac{2}{3}$ of 15 | $\frac{3}{4}$ of 32 |
| $\frac{2}{5}$ of 25 | $\frac{5}{8}$ of 24 | $\frac{7}{10}$ of 60 | $\frac{5}{9}$ of 27 | $\frac{4}{7}$ of 35 | $\frac{3}{8}$ of 32 | $\frac{7}{8}$ of 160 |

Trickier:

- | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|------------------------|---------------------|----------------------|
| $\frac{4}{5}$ of 120 | $\frac{3}{8}$ of 400 | $\frac{3}{4}$ of 120 | $\frac{2}{3}$ of 360 | $\frac{9}{10}$ of 1300 | $\frac{2}{5}$ of 85 | $\frac{7}{9}$ of 360 |
| $\frac{3}{8}$ of 256 | $\frac{6}{7}$ of 630 | $\frac{5}{6}$ of 174 | $\frac{7}{8}$ of 640 | | | |

Example of Fraction Think Board

On a number line



Draw it

3/4

Number Sentences

- 3/4 of 12=9
- 3/4 of 20=15
- 3/4 of 100=150
- 3/4 of 4=3
- 3/4 of 200=150

- 1/4 + 2/4=3/4
- 1 - 1/4=3/4

Word Problem

I have a bag of 24 sweets.
I eat three quarters of them.
How many sweets have I eaten?
How many have I got left?