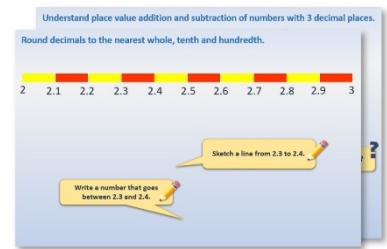


Week 10, Day 5

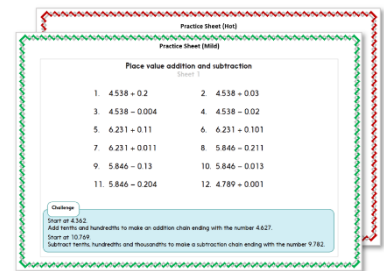
Find non-unit fractions of amounts

Each day covers one maths topic. It should take you about 1 hour or just a little more.

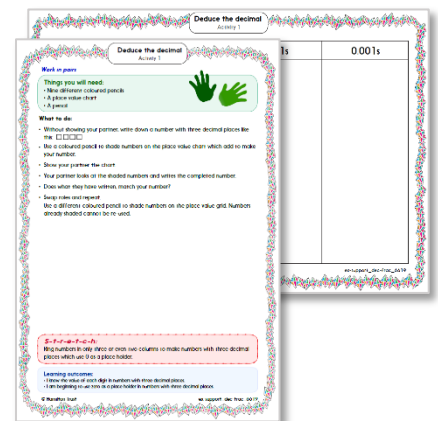
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



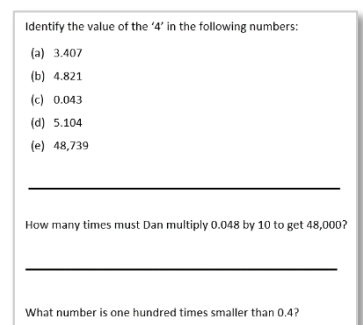
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

Find non-unit fractions of quantities using division and multiplication.

We can use a **bar model** to help us find **fractions of amounts**.

25				

What is $\frac{1}{5}$ of 25? **5**

25				
5				

Once we know $\frac{1}{5}$ we can use **times tables facts** to find the others!

So what is $\frac{2}{5}$ of 25? **10**

25				
5	5			

$\frac{3}{5}$ of 25? **15**

25				
5	5	5		

$\frac{4}{5}$ of 25? **20**

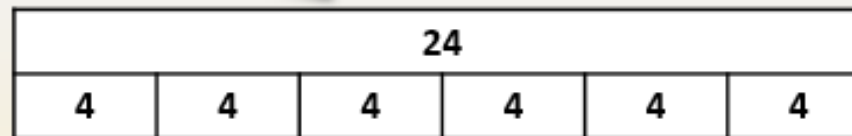
25				
5	5	5	5	

Learning Reminders

Find non-unit fractions of quantities using division and multiplication.



Now let's draw a bar model to find sixths of 24.



6 sections.

4 in each.

What is $\frac{1}{6}$ of 24? 4

So what is $\frac{5}{6}$ of 24?

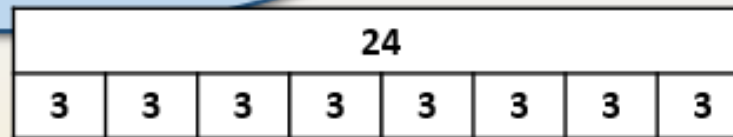
We could count on in 4s:
4, 8, 12... but it is quicker
to **multiply 4 by 5!**
 $\frac{5}{6}$ of 24 is **20.**

Learning Reminders

Find non-unit fractions of quantities using division and multiplication.



Now let's draw a bar model to show eighths of 24.



8 sections.

3 in each, since
 $24 \div 8 = 3$

$$\frac{1}{8} \text{ of } 24 = 3$$

Use this to find $\frac{3}{8}$ of 24, $\frac{5}{8}$ of 24, $\frac{2}{8}$ of 24 and $\frac{6}{8}$ of 24, in each case by multiplying 3 by the **numerator of the fraction.**

$\frac{3}{8}$ of 24 is 3×3 , **9**
 $\frac{5}{8}$ of 24 is 5×3 , **15**
 $\frac{2}{8}$ of 24 is 2×3 , **6**
 $\frac{6}{8}$ of 24 is 6×3 , **18**

Practice Sheet Mild

Finding non-unit fractions

Solve the following:

1. $\frac{1}{4}$ of 20 =

$\frac{3}{4}$ of 20 =

2. $\frac{1}{3}$ of 18 =

$\frac{2}{3}$ of 18 =

3. $\frac{1}{5}$ of 45 =

$\frac{3}{5}$ of 45 =

4. $\frac{1}{8}$ of 24 =

$\frac{3}{8}$ of 24 =

5. $\frac{1}{10}$ of 70 =

$\frac{6}{10}$ of 70 =

6. $\frac{1}{4}$ of 28 =

$\frac{3}{4}$ of 28 =

7. $\frac{1}{3}$ of 27 =

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

8. $\frac{1}{5}$ of 35 =

$\frac{4}{5}$ of 35 =

Challenge

1. $\frac{5}{8}$ of 32 =

2. $\frac{3}{10}$ of 50 =

Practice Sheet Hot

Finding non-unit fractions

Solve the following:

1. $\frac{3}{4}$ of 20 =

6. $\frac{3}{4}$ of 28 =

2. $\frac{2}{3}$ of 18 =

7. $\frac{2}{3}$ of 27 =

3. $\frac{3}{5}$ of 45 =

8. $\frac{4}{5}$ of 35 =

4. $\frac{3}{8}$ of 24 =

9. $\frac{5}{8}$ of 32 =

5. $\frac{6}{10}$ of 70 =

10. $\frac{3}{10}$ of 50 =

Challenge

Peter has $\frac{3}{4}$ of £32. Alison has $\frac{4}{5}$ of £30.

Who has the most money?

Practice Sheet Answers

Practice Sheet (Mild)

- $\frac{1}{4}$ of 20 = 5 $\frac{3}{4}$ of 20 = 15
- $\frac{1}{3}$ of 18 = 6 $\frac{2}{3}$ of 18 = 12
- $\frac{1}{5}$ of 45 = 9 $\frac{3}{5}$ of 45 = 27
- $\frac{1}{8}$ of 24 = 3 $\frac{3}{8}$ of 24 = 9
- $\frac{1}{10}$ of 70 = 7 $\frac{6}{10}$ of 70 = 42
- $\frac{1}{4}$ of 28 = 7 $\frac{3}{4}$ of 28 = 21
- $\frac{1}{3}$ of 27 = 9 $\frac{2}{3}$ of 27 = 18
- $\frac{1}{5}$ of 35 = 7 $\frac{4}{5}$ of 35 = 28

Practice Sheet (Hot)

- $\frac{3}{4}$ of 20 = 15
- $\frac{2}{3}$ of 18 = 12
- $\frac{3}{5}$ of 45 = 27
- $\frac{3}{8}$ of 24 = 9
- $\frac{6}{10}$ of 70 = 42
- $\frac{3}{4}$ of 28 = 21
- $\frac{2}{3}$ of 27 = 18
- $\frac{4}{5}$ of 35 = 28
- $\frac{5}{8}$ of 32 = 20
- $\frac{3}{10}$ of 50 = 15

Challenge

- $\frac{5}{8}$ of 32 = 20
- $\frac{3}{10}$ of 50 = 15

Challenge

Peter has $\frac{3}{4}$ of £32 which is £24.
Alison has $\frac{4}{5}$ of £30 which is £24.
They both have the same amount of money.

Check your understanding: Questions

True or false?

- A piece of paper folded equally in 3, then folded in half is divided into sixths when you open it out.
 - $\frac{1}{3}$ of a piece of paper is larger than $\frac{2}{6}$ of the same piece.
 - Two eighths make a quarter.
 - $\frac{2}{5}$ of 5 is 2.
 - $\frac{3}{8}$ of 16 is 5.
-

Draw a bar model to represent each question:

$\frac{3}{8}$ of 32?

$\frac{4}{5}$ of 40?

$\frac{5}{6}$ of 42?

Now write the answers.

Write < or > or = between these two statements:

$\frac{3}{5}$ of 40 $\frac{2}{3}$ of 30

Answers are on the next page

Check your understanding:

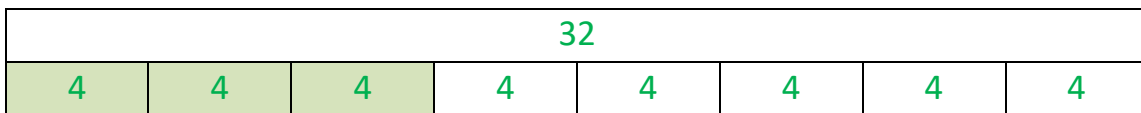
Answers

True or false?

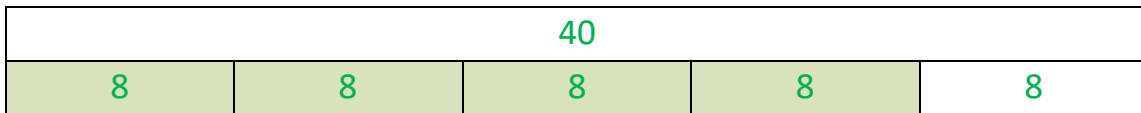
- A piece of paper folded equally in 3, then folded in half is divided into sixths when you open it out. **True.**
- $\frac{1}{3}$ of a piece of paper is larger than $\frac{2}{6}$ of the same piece. **False, they are the same since $\frac{1}{3}$ and $\frac{2}{6}$ are equivalent fractions.**
- Two eighths make a quarter. **True.**
- $\frac{2}{5}$ of 5 is 2. **True.**
- $\frac{3}{8}$ of 16 is 5. **False it is 6.**

Draw a bar model to represent each question:

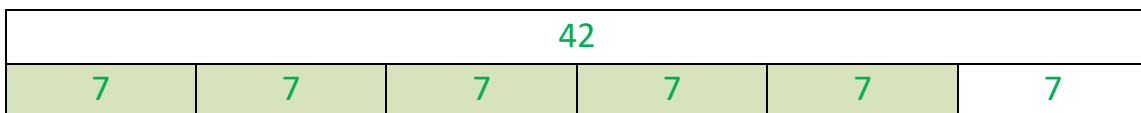
$\frac{3}{8}$ of 32? **12**



$\frac{4}{5}$ of 40? **32**



$\frac{5}{6}$ of 42? **35**



Write < or > or = between these two statements:

$\frac{3}{5}$ of 40 > $\frac{2}{3}$ of 30

$\frac{3}{5}$ of 40 = 24 and $\frac{2}{3}$ of 30 = 20, so $\frac{3}{5}$ of 40 is the greater.