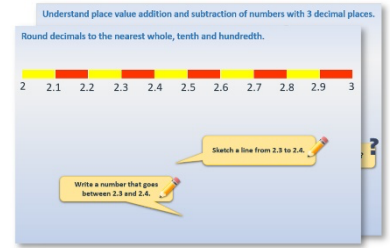


Week 6, Day 3

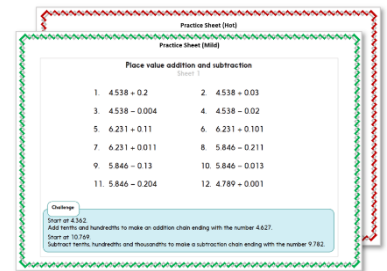
Imperial measures (1)

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

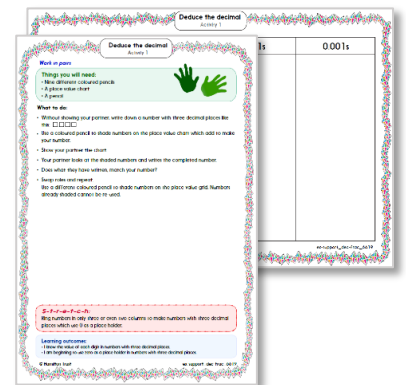
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



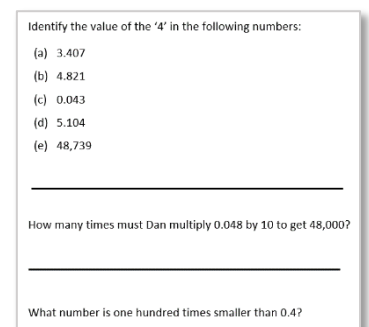
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



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

Know regularly-used imperial units and approximate metric equivalents.

Imperial units

pints **pounds** stones
ounces feet inches **yards**

Ask your grandparents /
parents / carers what
imperial measures they use.

When are these
used? ?

Some bags of crisps weigh 28 grams, a
very strange number but this is
because there were originally
'1-ounce' packets.
28g is approximately 1 ounce.



A new-born baby might weigh 7 pounds ?
and 8 ounces.

There are 16 ounces in a pound.
So how many ounces did the baby weigh?
How many bags of crisps is that?!

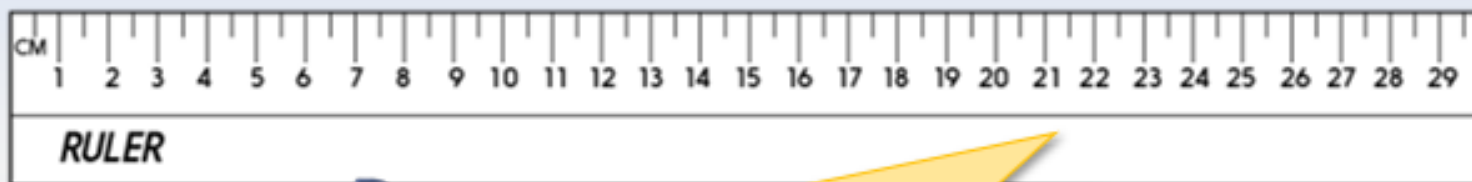
Many adults will know their weight in stones and
pounds rather than kilograms.

? There are 14 pounds in a stone. 10 kilograms is about
the same as $1\frac{1}{2}$ stones which is 1 stone and 7 pounds.
If a child weighs 20 kg, what is that in stones?
And if a child weighs 30 kg?

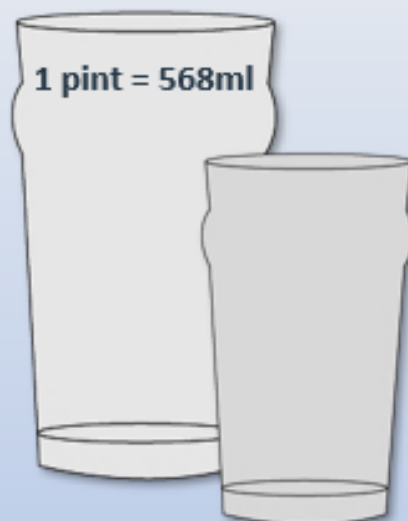
The baby weighed $7 \times 16 = 112$ ounces
The child weighed 20 kg or 3 stones

Learning Reminders

Know regularly-used imperial units and approximate metric equivalents.



This length originates from when rulers used to be a 'foot' long, 12 inches, about 30cm.
How long in inches is a **15cm** ruler?
An inch is about an adult thumb width.



Milk used to come in pint bottles and pubs still serve drinks in pint and half-pint glasses.

A 15 centimetre ruler is **6 inches** long.

Practice Sheet Mild

Converting between centimetres and inches

30 cm is approximately 12 inches.
There are 12 inches in one foot.
1 inch is approximately $2\frac{1}{2}$ cm

1. How many inches in:
 - a) 3 feet
 - b) 10 feet
 - c) $4\frac{1}{2}$ feet
 - d) $7\frac{1}{2}$ feet
2. How many feet in:
 - a) 120 inches
 - b) 66 inches
 - c) 96 inches
 - d) 42 inches
3. How many cm in:
 - a) 4 inches
 - b) 10 inches
 - c) 24 inches
 - d) 7 inches

Practice Sheet Hot

Converting between centimetres and inches

30 cm is approximately 12 inches.
There are 12 inches in one foot.
1 inch is approximately $2\frac{1}{2}$ cm

1. How many inches in:
 - a) 3 feet
 - b) 10 feet
 - c) $4\frac{1}{2}$ feet
 - d) $7\frac{1}{2}$ feet
2. How many feet in:
 - a) 120 inches
 - b) 66 inches
 - c) 96 inches
 - d) 42 inches
3. How many cm in:
 - a) 4 inches
 - b) 10 inches
 - c) 24 inches
 - d) 7 inches

Challenge

Use the information to order these children by height, from shortest to tallest.

Table of heights

Name	Height
Ben	6 feet and 3 inches
Mia	125 cm
Miriam	60 inches
Lucas	1.5 m
Chan	5 feet 6 inches
Sarah	1 m 70 cm

Ask someone to measure your height in feet and inches. Convert this to metres and centimetres.

Practice Sheets Answers

Converting between centimetres and inches (mild)

1.
 - a) 36 inches
 - b) 120 inches
 - c) 54 inches
 - d) 90 inches
2.
 - a) 10 feet
 - b) $5\frac{1}{2}$ feet
 - c) 8 feet
 - d) $3\frac{1}{2}$ feet
3.
 - a) 10 cm
 - b) 25 cm
 - c) 60 cm
 - d) 17.5 cm

Converting between centimetres and inches (hot)

1.
 - a) 36 inches
 - b) 120 inches
 - c) 54 inches
 - d) 90 inches
2.
 - a) 10 feet
 - b) $5\frac{1}{2}$ feet
 - c) 8 feet
 - d) $3\frac{1}{2}$ feet
3.
 - a) 10 cm
 - b) 25 cm
 - c) 60 cm
 - d) 17.5 cm

Challenge

Name	Height
Ben	6 feet and 3 inches = 187.5 cm
Mia	125 cm
Miriam	60 inches = 150 cm
Lucas	1.5 m = 150 cm
Chan	5 feet 6 inches = 165 cm
Sarah	1 m 70 cm = 170 cm

Shortest to tallest:

Mia
Miriam = Lucas
Chan
Sarah
Ben

A Bit Stuck?

Tape measure maths

Approximate metric and imperial equivalents:

$$30\text{cm} = 1 \text{ foot} = 12 \text{ inches};$$

$$1 \text{ inch} = 2\frac{1}{2} \text{ cm}$$

Use this information to generate other facts:

$$6 \text{ inches} = \boxed{} \text{ centimetres}$$

$$5 \text{ centimetres} = \boxed{} \text{ inches}$$

$$60 \text{ centimetres} = \boxed{} \text{ feet} = \boxed{} \text{ inches}$$

$$3 \text{ feet} = \boxed{} \text{ centimetres}$$

Check your answers on a tape measure.



Remember that these are approximate, so the answer will be a little different, but they are still useful approximations.

How tall are you?

Find your height in feet and inches.

Convert the feet to centimetres, and then the remaining inches to centimetres.

What is your height in metres and centimetres?

Check your understanding

Questions

Write a familiar object that weighs about...

- (a) 5 Kg
 - (b) 1 pound
 - (c) 100g
-

Write a familiar container that holds about ...

- (a) 1 pint
 - (b) 5 ml
 - (c) 2 gallons
-

True or false?

- Half a pint is about $\frac{1}{4}$ of a litre
- You can weigh people in stones

Fold here to hide answers

Check your understanding

Answers

Write a familiar object that weighs about...

- (a) 5 Kg e.g. cat or small dog.
 - (b) 1 pound e.g. small bag of sugar, 1 very large potato
 - (c) 100g e.g. bar of soap, small book, apple.
-

Write a familiar container that holds about...

- (a) 1 pint e.g. jug, carton of milk, beer glass.
 - (b) 5 ml e.g. a teaspoon.
 - (c) 2 gallons e.g. a large bucket.
-

True or false?

- Half a pint is about $\frac{1}{4}$ of a litre True – it is around 280ml.
- You can weigh people in stones True, Stones are an 'Imperial' measure of weight.