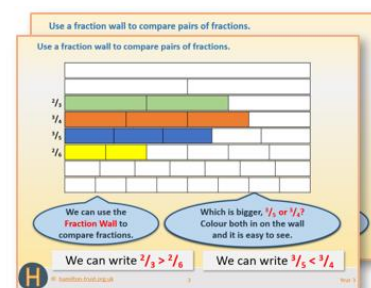# Week 11, Day 2
Solve word problems with mental multiplication or division.
Each day covers one maths topic. It should take you about 1 hour or just a little more.

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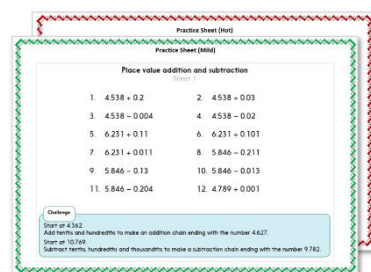
3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**

4. Think you've cracked it? Whizzed through the Practice Sheets?
Have a go at the **Investigation**…

Learning Reminders

Solve word problems needing mental multiplication or division.

We can use our RUCSAC to help solve word problems!

Read the problem.

  Understand what you need to do.

    Calculation: Which operation do you need?

     Solve the calculation.

      Answer the problem.

       Check - does the answer seem reasonable?

Learning Reminders

Solve word problems needing mental multiplication or division.

A tea shop has 23 trays of shortbread. Each tray is divided so it holds
20 pieces of shortbread.
How many pieces of shortbread are there?

We need to find 23 x 20 as each tray has 20 pieces of shortbread.

We can multiply by 10, then double.

23 x 10 = 230.
Double 230 is 460.

460 – does that seem reasonable?

Learning Reminders

Solve word problems needing mental multiplication or division.

A coach party of 46 people has come to the tea shop. They all want cream teas. Scones come in packs of 4. How many packs are needed?

We need to divide 46 by 4 to find how many packs are needed.

46 ÷ 4 = 11 r 2 or 11½. But what is the answer to the problem?

Scones come in packs of 4 so we need to use 12 packs.

Practice Sheet Mild
Multiplication and division word problems

1. A tea shop has 23 boxes of herbal tea. They come in boxes of 20 tea bags. How many tea bags do they have?

2. The tea shop has $10\frac{1}{2}$ cakes left. If each cake is cut into 8 slices how many slices is this?

3. 16 children in Year 5 have each brought 20p to buy a snack at break time. How much money have they brought in altogether?

4. How many weeks is 91 days?

5. A family of 6 go out for a birthday meal. The bill comes to £63. How much does the meal cost per person?

6. A bus route is 17 miles. If the driver drives it 20 times in a day, how many miles is that?

7. A school has 147 children equally split between 7 classes. How many children are in each class?

8. A top distance runner takes an average time of 5 minutes to run a mile. How long will it take to run 14 miles?

Practice Sheet Hot
Multiplication and division word problems

1. A tea shop has 59 boxes of herbal tea. They come in boxes of 20 tea bags. How many tea bags do they have?

2. The tea shop has $11\frac{1}{4}$ cakes left. If each cake is cut into 8 slices how many slices is this?

3. 37 children in Year 5 have each brought 20p to buy a snack at break time. How much money have they brought in altogether?

4. How many weeks is 224 days?

5. A family of 6 go out for a birthday meal. The bill comes to £81. How much does the meal cost per person?

6. A bus route is 32 miles. If the driver drives it 19 times in a day, how many miles is that?

7. A school has 203 children equally split between 7 classes. How many children are in each class?

8. A top distance runner takes an average time of 5 minutes to run a mile. How long will it take to run 27 miles?

Practice Sheets Answers

Multiplication and division word problems (mild)

1. $23 \times 20 = 460$ The tea shop has 460 tea bags.
2. $10\frac{1}{2} \times 8 = 84$ The tea shop has 84 slices of cake.
3. $16 \times 20p = 320p$ or £3.20   The children have brought in £3.20 altogether.
4. $91 \div 7 = 13$ 91 days is 13 weeks.
5. £63 $\div$ 6 = £10.50   The meal cost £10.50 per person.
6. $17 \times 20 = 340$ The driver drives 340 miles in a day.
7. $147 \div 7 = 21$ There are 21 children in each class.
8. $14 \times 5min = 70min$ It will take the runner 1 hour and 10 minutes.

Multiplication and division word problems (hot)

1. $59 \times 20 = 1180$ The tea shop has 1180 tea bags.
2. $11\frac{1}{4} \times 8 = 90$ The tea shop has 90 slices of cake.
3. $37 \times 20p = 740p$ or £7.40   The children have brought in £7.40 altogether.
4. $224 \div 7 = 32$ 224 days is 32 weeks.
5. £81 $\div$ 6 = £13.50   The meal cost £13.50 per person.
6. $32 \times 19 = 608$ The driver drives 608 miles in a day.
7. $203 \div 7 = 29$ There are 29 children in each class.
8. $27 \times 5min = 135min$ It will take the runner 2 hours and 15 minutes.

Work in pairs

Things you will need:
• A pencil
• A large piece of paper
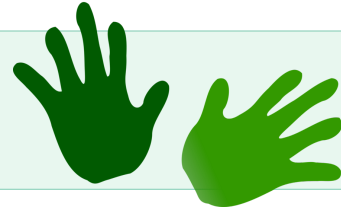
What to do:

• Work in pairs to write out the 4 times table on the left of the piece of paper.

• Next to this write out the 40 times table. Remember - you can multiply by 10 to get the answers.

• Now write out the 400 times table!

$1 \times 4 = 4$ $1 \times 40 = 40$ $1 \times 400 = 400$

$2 \times 4 = 8$ $2 \times 40 = 80$ $2 \times 400 = 800$

$3 \times 4 = 12$

$4 \times 4 =$

...

S-t-r-e-t-c-h:
Work out the missing numbers.
$6 \times \square = 12$ $6 \times \square = 120$ $6 \times \square = 1200$.
Test out your answers.

Learning outcomes:
• I can use known times tables and place value to multiply, e.g. 4 x 3, 4 x 30, 4 x 300.
• I am beginning to use known times tables and place value to solve problems.

Investigation
Fruit Salad

Oranges 23p each
Bananas 28p each
Apples 31p each
Mangos 42p each
Grapes 55p a bunch
Pineapples 95p each

- Kyle and Emma are making a fruit salad. They have a budget of £10.

- How many of each fruit can they buy to make the fruit salad?
  Be careful not to go over the budget!

- How much change will they have?

- Investigate different combinations of fruit...

- Try a salad that includes at least one of each type.

- What if they had a budget of **£25**?
  How many of each fruit can they use?

Challenge

Can you find a fruit salad that would cost **exactly** £20?