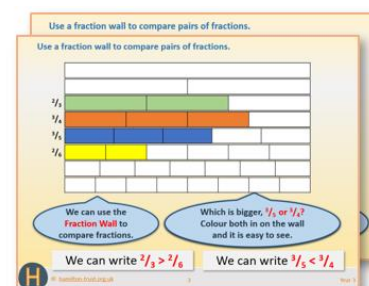


Week 11, Day 2

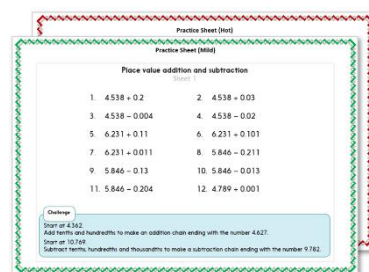
Solve word problems with mental multiplication or division.

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 23×20 as each tray has 20 pieces of shortbread.

We can multiply by 10, then double.

$23 \times 10 = 230$.
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.**

**$46 \div 4 = 11 \text{ r } 2$ or $11\frac{1}{2}$.
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?	5. A family of 6 go out for a birthday meal. The bill comes to £63. How much does the meal cost per person?
2. The tea shop has $10\frac{1}{2}$ cakes left. If each cake is cut into 8 slices how many slices is this?	6. A bus route is 17 miles. If the driver drives it 20 times in a day, how many miles is that?
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?	7. A school has 147 children equally split between 7 classes. How many children are in each class?
4. How many weeks is 91 days?	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. | $14 \times 5\text{min} = 70\text{min}$ | 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. | $27 \times 5\text{min} = 135\text{min}$ | It will take the runner 2 hours and 15 minutes. |

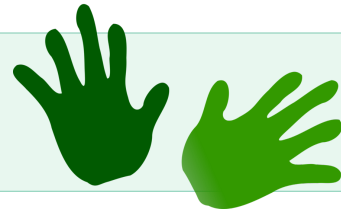
A Bit Stuck?

Mammoth multiplications

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.

$$6 \times \square = 12 \quad 6 \times \square = 120 \quad 6 \times \square = 1200.$$

Test out your answers.

Learning outcomes:

- I can use known times tables and place value to multiply, e.g. 4×3 , 4×30 , 4×300 .
- 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?