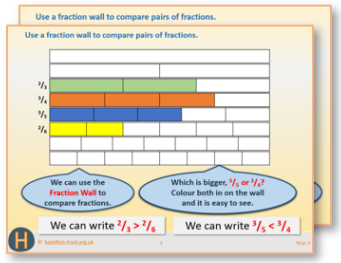
Week 14, Day 1

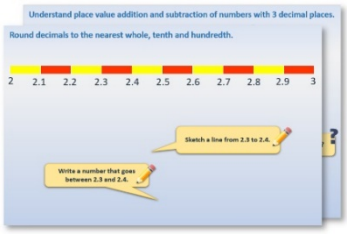
Use short division to divide, including writing remainders.

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

1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



   OR start by carefully reading through the **Learning Reminders**.



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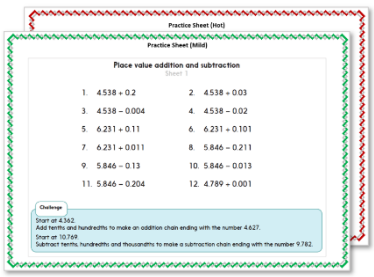
2. Tackle the questions on the **Practice Sheet**.
   There might be a choice of either Mild (easier) or Hot (harder)!
   Check the answers.



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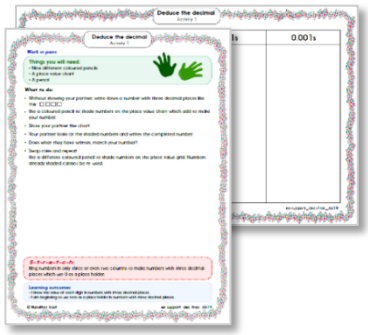
3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**



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

Learning Reminders

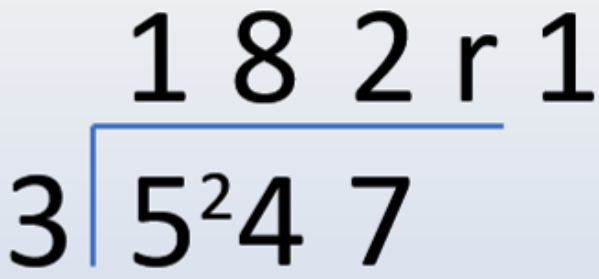
Use short division to divide 3 and 4-digit numbers by 1-digit numbers, including those that leave a remainder.

Solving 547 ÷ 3 using short division

Start by dividing 5 by 3.
There is one 3 in 5 and 2 left over.
So, write **1** above the line, in the 100s place.
Write the 2 left over in front of the next digit.

Now divide 24 by 3.
There are exactly eight 3s in 24.
So, write **8** above the line, in the 10s place.

Now divide 7 by 3.
There are two 3s in 7, and 1 left over.
So, write **2** above the line, in the 1s place.
There is 1 left over, so we write **r 1**.



The answer is **182 r 1**.

Learning Reminders

Use short division to divide 3 and 4-digit numbers by single-digit numbers, including those that leave a remainder.

1381 ÷ 6

Now let's try an example with 4 digits! Roughly how many 6s are in 1381?

200 × 6 = 1200 and 300 × 6 = 1800.
The answer must lie between 200 and 300.

Set out the question carefully.
Leaving a space between digits for any extra digits we may need to write in.

Learning Reminders

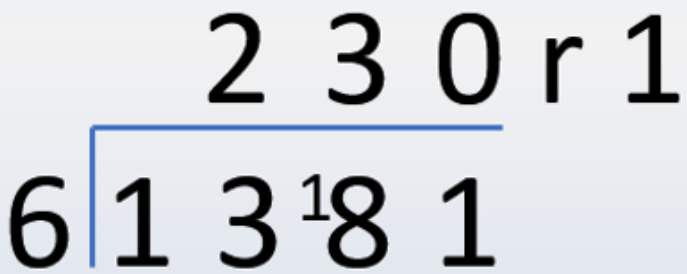
Use short division to divide 3 and 4-digit numbers by 1-digit numbers, including those that leave a remainder.

Start with the 1000s. There are no 6s in 1 so leave a space above the 1 and move on.

Now divide 13 by 6.
There are two 6s in 13 and 1 left over.
So, write **2** above the line, in the 100s place.
Write the 1 left over in front of the next digit.

Now divide 18 by 6.
There are exactly three 6s in 18.
So, write **3** above the line, in the 10s place.

There are no 6s in 1.
Write 0 above the line in the 1s place.
There is 1 left over, so write r 1.



The answer is 230 r 1.

Practice Sheet Mild

Short division with remainders

1. $542 \div 4$
2. $523 \div 3$
3. $746 \div 5$
4. $638 \div 3$
5. $982 \div 4$
6. $249 \div 4$
7. $341 \div 4$
8. $283 \div 3$
9. $364 \div 5$
10. $754 \div 6$

Challenge

Alys says 'The biggest remainder you can have when you divide by 6 is 5.'
Do you agree with her?
Explain your reasoning...

Practice Sheet Hot

Short division with remainders

1. $5237 \div 4$
2. $8351 \div 6$
3. $8343 \div 8$
4. $2734 \div 5$
5. $9535 \div 4$
6. $2347 \div 3$
7. $1429 \div 4$
8. $1532 \div 7$
9. $4735 \div 6$
10. $5391 \div 8$

Challenge

Write two different 4-digit numbers which when divided by 5 will give a remainder of 2.
Write two different 4-digit numbers which when divided by 4 will give a remainder of 3.