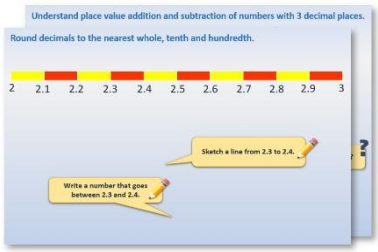
Year 4: Week 2, Day 5
Column subtraction

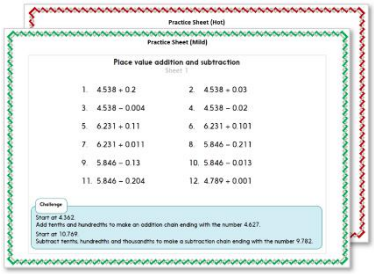
Each day covers one maths topic. It should take you about 1 hour or just a little more.

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



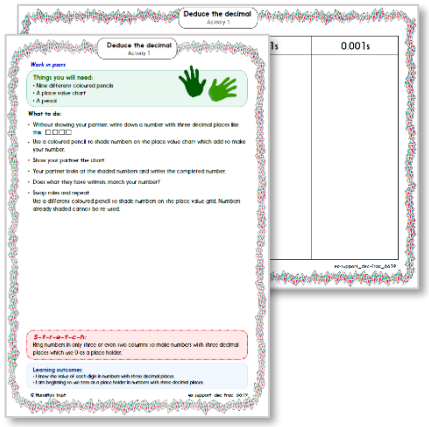
---

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



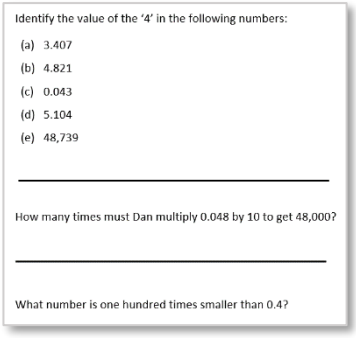
---

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

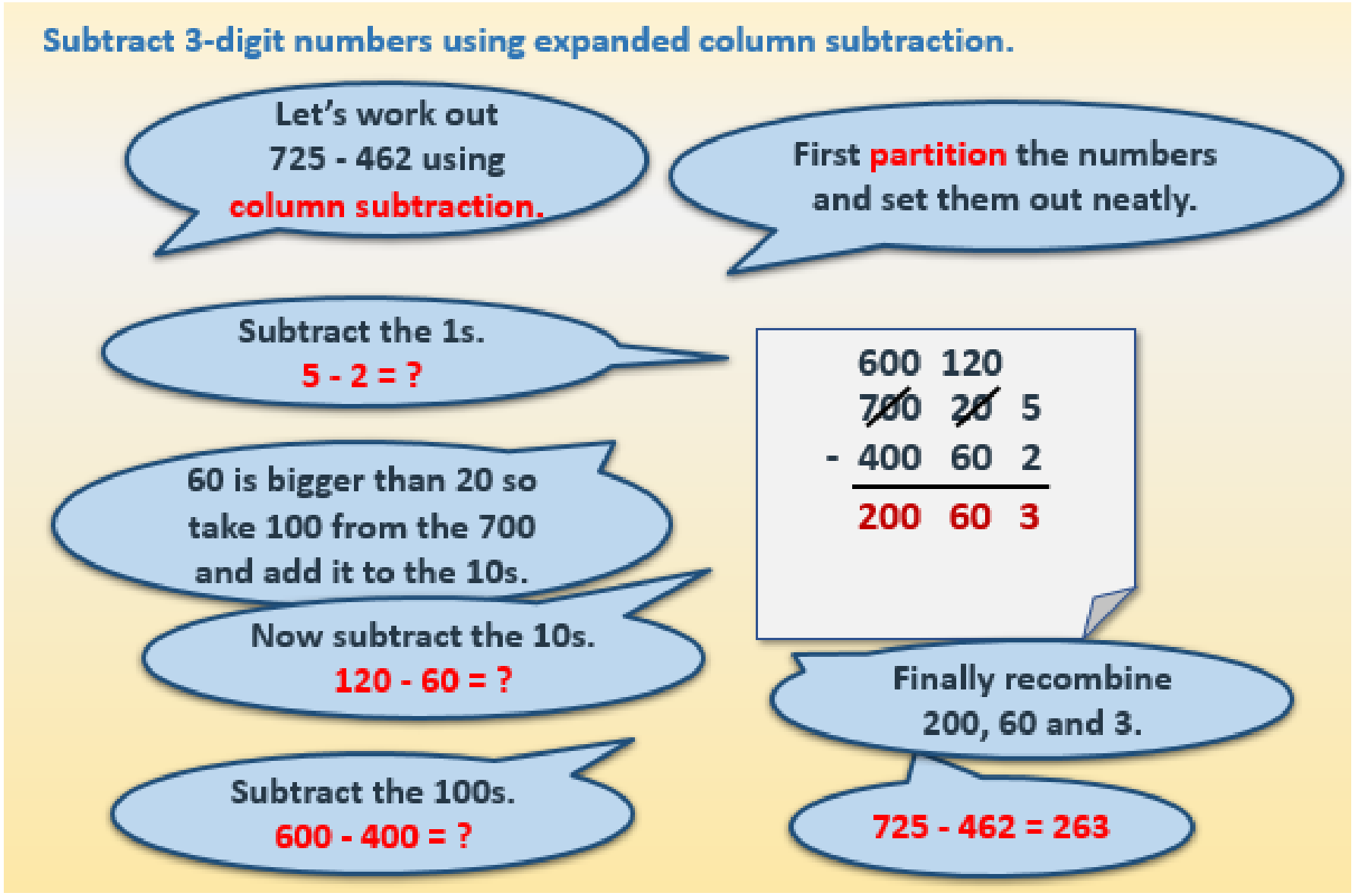


---

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



Learning Reminders



Learning Reminders

Subtract 3-digit numbers using expanded column subtraction.

Now let's try **745 - 367.**
How many moves across columns will we need this time?

7 is bigger than 5 so take 10 from the 40 and add it to the 1s.

15 - 7 = ?

60 is bigger than 30 so take 100 from the 700 and add it to the 10s..

130 - 60 = ?

Subtract the 100s.

600 - 300 = ?

600	130	15
~~700~~	~~40~~	~~5~~
- 300	60	7
300	**70**	**8**

Finally recombine 300, 70 and 8.

745 - 367 = 378

Practice Sheet Mild
Expanded subtraction

Use expanded column subtraction to solve these calculations.

1. 265 – 134

2. 598 – 372

3. 682 – 456

4. 364 – 149

5. 472 – 253

6. 745 – 561

7. 874 – 246

8. 855 – 278

9. 952 – 685

10. 344 – 175

11. 535 – 488

12. 746 – 467

Challenge

Write a 3-digit number. Subtract it from 999. Now say the answer if you were to subtract it from 1000. Check using Frog to subtract it from 1000.
Repeat with another 3-digit number.

Practice Sheet Hot

Subtraction

Choose whether to use counting up (Frog) or expanded column subtraction.

453 - 348 =

674 - 427 =

826 - 645 =

725 - 532 =

847 - 673 =

958 - 482 =

607 - 572 =

803 - 641 =

520 - 315 =

630 - 527 =

Practice Sheet Answers

Expanded subtraction (mild)

1. 265 – 134 = 131
2. 598 – 372 = 226
3. 682 – 456 = 226
4. 364 – 149 = 215
5. 472 – 253 = 219
6. 745 – 561 = 184
7. 874 – 246 = 628
8. 855 – 278 = 577
9. 952 – 685 = 267
10. 344 – 175 = 169
11. 535 – 488 = 47
12. 746 – 467 = 279

Subtraction (hot)

453–348 = 105
674–427 = 247
826–645 = 181
725–532 = 193
847–673 = 174
958–482 = 476
607–572 = 35
803–641 = 162
520–315 = 205
630–527 = 103

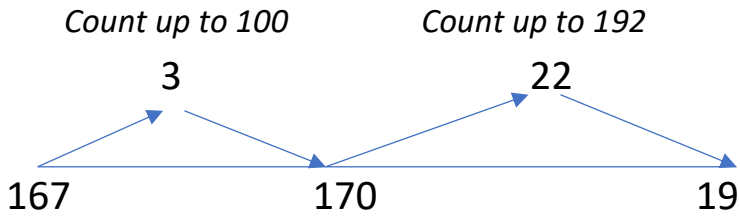
A Bit Stuck?

Parent or carer

Many children at this age find column subtraction very tricky. In this case, we give them more practice on subtracting using the strategy of **counting up** on a number line. This is the method that we all use when finding our change!

Pay £10 Spend £7.25 Count up from £7.25 to £10

So, help your child to do the calculations below by counting up.
Here's the second one. **192 – 167**



Answer is 3 + 22 = 25

You can do every one on the sheet below like this.

This achieves a lot of good things!

- They rehearse the skill of adding to the next multiple of 10 – an absolutely essential skill for numerical fluency.
- They consolidate their understanding of how numbers work – counting from the multiple of 10 to the next number (This is the second hop.)
- They gain confidence, because you can do ANY subtraction this way
- It is a method which is particularly useful for money calculations.

GOOD LUCK!

A Bit Stuck?
Teach the frog

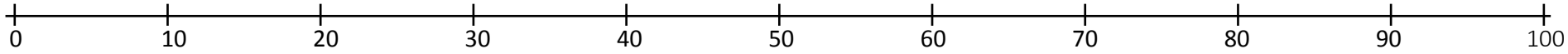
Work in pairs

Things you will need:
- A pencil

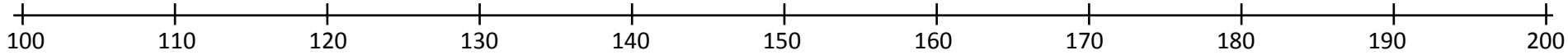
What to do:

Take it in turns to be the teacher and to be the Frog.
Tell your partner, one step at a time, how to work out the answer to each subtraction.
Remember to use your skills in subtracting 2-digit numbers to help you to subtract 3-digit numbers.

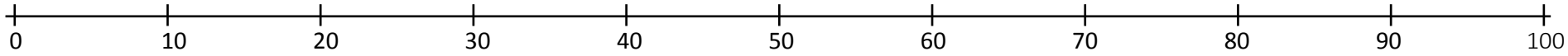
1. 92 - 67 =



2. 192 - 167 =

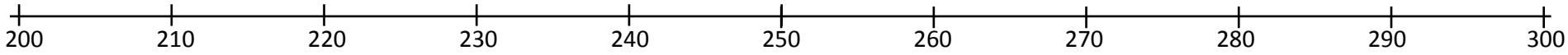


3. 83 - 45 =

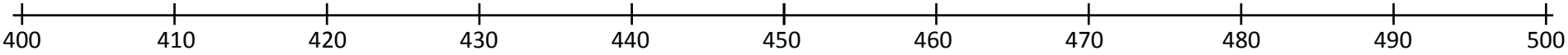


A Bit Stuck?
Teach the frog

4. 283 - 267 =



5. 452 - 437 =



S-t-r-e-t-c-h:

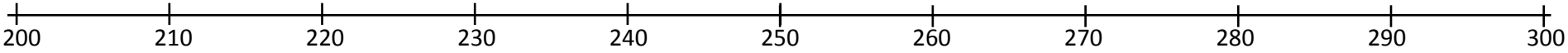
Draw your own number line jottings to work out 354 – 337 and 572 – 549.

Learning outcomes:

- I can use Frog to subtract pairs of 2-digit numbers, using a landmarked line to help.
- I can use Frog to subtract pairs of 3-digit numbers, within the same century, using a landmarked line to help.
- I am beginning to sketch my own number line jottings when using Frog.

A Bit Stuck?

Teach the frog



Check your understanding

Questions

Complete this calculation that uses ‘column subtraction’:

$$\begin{array}{rrrr} & 700 & 30 & 7 \\ - & 300 & 60 & 5 \\ \hline & & & \end{array}$$

Fill the gaps in this subtraction:

81☐ – 4☐7 = ☐46

Fold here to hide answers

Check your understanding

Answers

Complete this calculation that uses ‘column subtraction’:

$$\begin{array}{rrrr} & 600 & 130 & \\ & \cancel{700} & \cancel{30} & 7 \\ - & 300 & 60 & 5 \\ \hline & 300 & 70 & 2 \end{array}$$

Fill the gaps in this subtraction:

8 1[3] – 4[6]7 = [3]4 6

Probably best-solved by setting out as a column subtraction.