Week 14, Day 4
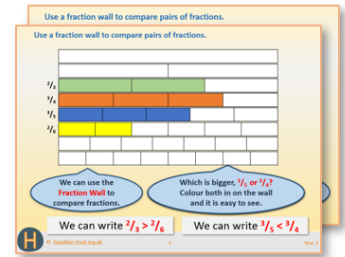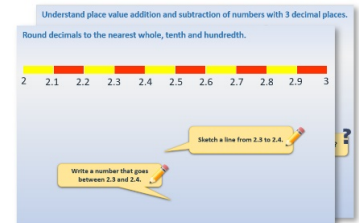## Count on and back in steps of 25 and 1000
Each day covers one maths topic. It should take you about 1 hour or just a little more.
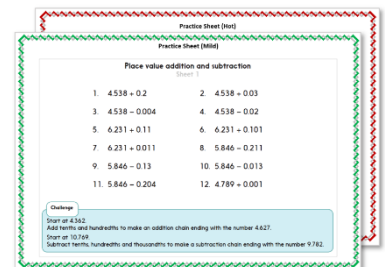
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.
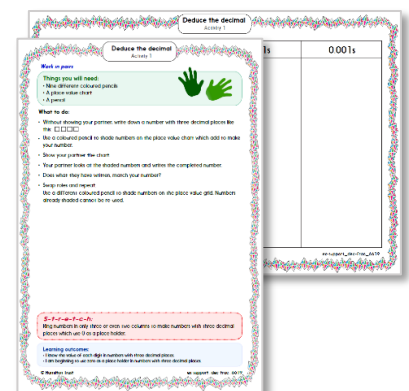
   OR start by carefully reading through the **Learning Reminders**.

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

Count on and back in steps of 25 and 1000.

356

1356

2356

3356

[ ]

[ ]

What will be the next two numbers in this sequence? Look at the pattern – how much do they go up each time?

Answer check here!

4356, 5356
The numbers increase by 1000 each time.

Learning Reminders

Count on and back in steps of 25 and 1000.

25
50
75
100

What will be the next two numbers in this sequence?
Look at the pattern – how much do they go up each time?

Learning Reminders

Count on and back in steps of 25 and 1000.

| 17 |
| 42 |
| 67 |
| 92 |
| |
| |

What will be the next two numbers in this sequence?
Look at the pattern – how much do they go up each time?

Answer check here!

117, 142
The numbers increase by 25 each time.

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Practice Sheet Mild
Count on and back in steps of 25 and 1000

Fill in the missing numbers.

1.   347, 1347, ☐, 3347, 4347, ☐, 6347, 7347

2.   9361, ☐, 7361, ☐, ☐, 4361, ☐, 2361

3.   26, 51, 76, ☐, 126, ☐, 176, ☐, 226

4.   20, 45, 70, ☐, 120, 145, 170, ☐, 220

5.   274, 299, ☐, 349, ☐, 399, 424, ☐, 474

6.   475, ☐, 425, ☐, 375, 350, ☐, ☐, ☐

7.   231, 206, ☐, 156, ☐, 106, ☐, ☐, 31

Count on and back in steps of 25 and 1000

Fill in the missing numbers.

1. [ ] , 1347 , [ ] , [ ] , [ ] , [ ] , 6347 , [ ]

2. [ ] , [ ] , 7361 , [ ] , [ ] , 4361 , [ ] , [ ]

3. 26, 51, [ ] , [ ] , 126, [ ] , [ ] , [ ] , 226

4. 20, 45, [ ] , [ ] , 120, [ ] , 170, [ ] , 220

5. [ ] , [ ] , [ ] , [ ] , [ ] , [ ] , [ ] , [ ] , 474

6. 475, [ ] , 425, [ ] , 375, 350, [ ] , [ ] , [ ]

7. 231, 206, [ ] , 156, [ ] , 106, [ ] , [ ] , 31

8. [ ] , [ ] , [ ] , [ ] , [ ] , [ ] , [ ] , [ ] , 5, [ ]

Challenge

[ ] , [ ] , [ ] , 2 , 27 , 52

Practice Sheets Answers

Count on and back in steps of 25 and 1000 (mild)

1.   347, 1347, 2347, 3347, 4347, 5347, 6347, 7347
2.   9361, 8361, 7361, 6361, 5361, 4361, 3361, 2361
3.   26, 51, 76, 101, 126, 151, 176, 201, 226
4.   20, 45, 70, 95, 120, 145, 170, 195, 220
5.   274, 299, 324, 349, 374, 399, 424, 449, 474
6.   475, 450, 425, 400, 375, 350, 325, 300, 275
7.   231, 206, 181, 156, 131, 106, 81, 56, 31

Count on and back in steps of 25 and 1000 (hot)

1.   347, 1347, 2347, 3347, 4347, 5347, 6347, 7347
2.   9361, 8361, 7361, 6361, 5361, 4361, 3361, 2361
3.   26, 51, 76, 101, 126, 151, 176, 201, 226
4.   20, 45, 70, 95, 120, 145, 170, 195, 220
5.   274, 299, 324, 349, 374, 399, 424, 449, 474
6.   475, 450, 425, 400, 375, 350, 325, 300, 275
7.   231, 206, 181, 156, 131, 106, 81, 56, 31
8.   205, 180, 155, 130, 105, 80, 55, 30, 5, -20

Challenge

-73, -48, -23, 2, 27, 52

A Bit Stuck?
Count in steps of 100 and 50

Write the missing numbers in these sequences:

48, 148, ____, ____, 448, ____, ____, 748, ____, ____, 1048

3, 103, ____, ____, ____, ____, 603, ____, ____, ____, 1003

28, ____, 228, ____, ____, ____, ____, 728, ____, 928, ____

1010, 910, ____, ____, 610, ____, ____, ____, 210, ____, ____

50, 100, 150, ____, ____, ____, 350, ____, ____, ____, 550

7, 57, 107, ____, ____, ____, 307, ____, ____, 457

35, 85, ____, ____, 235, ____, ____, 385, ____, ____, ____

94, ____, 194, 244, ____, ____, 394, ____, ____, 544, ____

S-t-r-e-t-c-h:
Now make up your own counting in 50 sequences.

A Bit Stuck? Answers

Count in steps of 100 and 50

48, 148, 248, 348, 448, 548, 648, 748, 848, 948, 1048
3, 103, 203, 303, 403, 503, 603, 703, 803, 903, 1003
28, 128, 228, 328, 428, 528, 628, 728, 828, 928, 1028
1010, 910, 810, 710, 610, 510, 410, 310, 210, 110, 10
50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550
7, 57, 107, 157, 207, 257, 307, 357, 407, 457
35, 85, 135, 185, 235, 285, 335, 385, 435, 485, 535
94, 144, 194, 244, 294, 344, 394, 444, 494, 544, 594

Investigation
Counting back in 25s

248 **238** **278** **218**

These numbers are all between 200 and 300.
Your challenge is to find a rule or pattern to help find what number is *first* in the sequence when counting back in 25s from each, i.e. the smallest positive number possible.
 e.g. Starting with **248** and counting back in 25s, we get: **223, 198, 173, 148, 123, 98, 73, 48, 23.** So 23 was the first number in the sequence.

- Try starting with one of the other card numbers.
  Write the numbers in the sequence so you don't lose track.
- Do you notice anything about the digits in the sequences?
- Now choose one of the other numbers.
- Can you predict what might happen?
- Try it and see. Was your prediction correct?
- What would happen if you started with a number between 200 and 300 ending in **3**? Try from **283** or **253**. Was your prediction correct?
  Is there only a pattern in the 1s digits...?
- Now try numbers ending in **6**, e.g. **296** or **246**, what do you find?
- Can you predict what would happen if you started with a number ending in **97**, e.g. **297** or **397**?

Challenge

- Choose a starting number between **500 and 600** and count back in 25s.
- It might take longer to write the whole sequence but *does the larger number of steps required in the sequence actually make it **harder**?*
- How can you explain this?

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