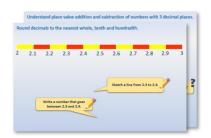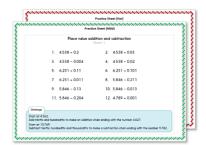# Year 5: Week 4, Day 3
Written subtraction (2)

Each day covers one maths topic. It should take you about 1 hour or just a little more.
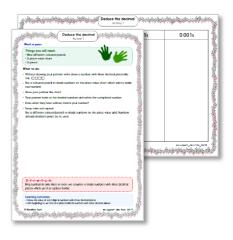
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.

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**…
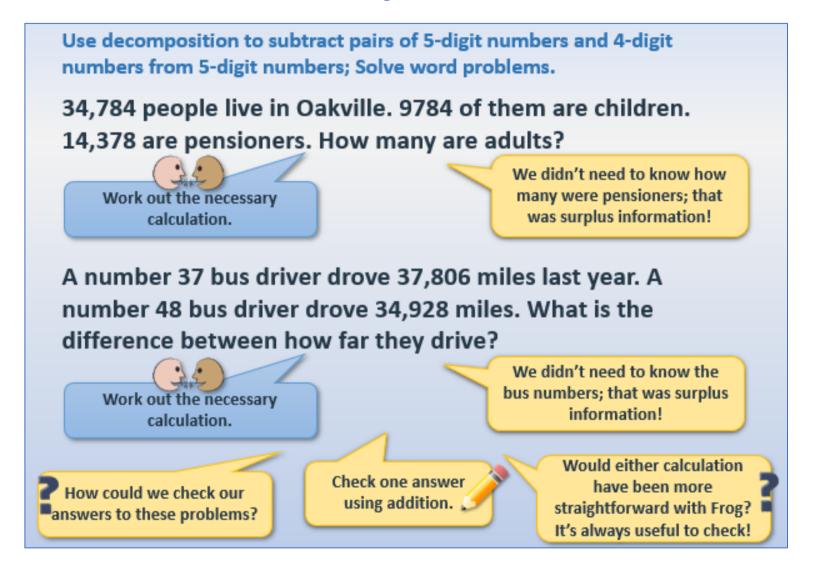
Learning Reminders

Use decomposition to subtract 4-digit numbers from 5-digit numbers.

$$45{,}782 - 7356 = 38{,}426$$

> Write this as a *vertical* subtraction.
> What do you think we need to watch out for when setting it out?

```
  3 15   7 12
  4̶ 5̶ 7 8̶ 2̶
-     7 3 5 6
  3 8 4 2 6
```

> Make sure that 1s are under 1s, 10s under 10s, 100s under 100s and so on.

Learning Reminders

Use decomposition to subtract pairs of 5-digit numbers and 4-digit numbers from 5-digit numbers; Solve word problems.

34,784 people live in Oakville. 9784 of them are children. 14,378 are pensioners. How many are adults?

Work out the necessary calculation.

We didn't need to know how many were pensioners; that was surplus information!

A number 37 bus driver drove 37,806 miles last year. A number 48 bus driver drove 34,928 miles. What is the difference between how far they drive?

Work out the necessary calculation.

We didn't need to know the bus numbers; that was surplus information!

How could we check our answers to these problems?

Check one answer using addition.

Would either calculation have been more straightforward with Frog? It's always useful to check!

© Hamilton Trust

Practice Sheet Mild
Subtraction practice

1. 64,784 - 21,529

2. 75,548 - 43,273

3. 86,347 - 33,720

4. 72,583 - 45,251

5. 56,421 - 24,175

6. 92,765 - 48,308

7. 45,287 people live in South Oaktown. 38,145 people live in North Oaktown. What is the difference between their populations?

8. The odometer on a six-year old car shows 63,564 miles. In the first five years it had driven 52,382 miles. How many miles were driven last year?

Challenge

Write a word problem which involves subtracting 45,875 from 50,005. Then explain how you would do the subtraction if you were solving your own word problem!

Practice Sheet Hot
Subtraction practice

1. 57,348 - 3762

2. 84,823 - 6248

3. 45,240 - 2758

4. 83,602 - 7478

5. 52,033 - 5674

6. 86,535 - 8645

7. There are 73,452 views of a cartoon on the Internet on Saturday. On Sunday, there are 5276 fewer views. How many views are there on Sunday?

8. A Boeing 777 plane flies 17,177km from Sydney via Singapore to London. So far it has flown 8345 kilometres. How much further does it have to go?

9. A hot-air balloon has travelled 23 miles at 12,364 feet. It descends 1534 feet, then another 4245 feet. What is its altitude now?

10. A lottery winner buys a holiday for all her family for £3448 and a new car for £5999. She won £35,478. How much is left?

Challenge

Write a word problem which involves subtracting 45,875 from 50,005. Then explain how you would do the subtraction if you were solving your own word problem!

Practice Sheet Answers

Subtraction practice (mild)

1. 64,784 - 21,529 = 43,255
2. 75,548 - 43,273 – 32,275
3. 86,347 - 33,720 = 52,627
4. 72,583 - 45,251 – 27,332
5. 56,421 - 24,175 = 32,246
6. 92,765 - 48,308 – 44,457
7. 45,287 - 38,145 = 7142. There is a difference of 7142 between their populations.
8. 63,564 - 52,382 = 11,182. The car drove 11,182 miles in the last year.

> **Challenge**
>
> There are many possible answers here.

Subtraction practice (hot)

1. 57,348 - 3762 = 53,586
2. 84,823 - 6248 = 78,575
3. 45,240 - 2758 = 42,482
4. 83,602 - 7478 = 76,124
5. 52,033 - 5674 = 46,359
6. 86,535 - 8645 = 77,890
7. 73,452 - 5276 = 68,176 views on Sunday.
8. 17,177 - 8345 = 8832. The plane has 8832km further to go.
9. 12,364 - 1534 - 4245 = 6585. The hot-air balloon is now at an altitude of 6585 feet.
10. 35,478 - 3448 - 5999 = 26,031. The lottery winner has £26,031 left.

> **Challenge**
>
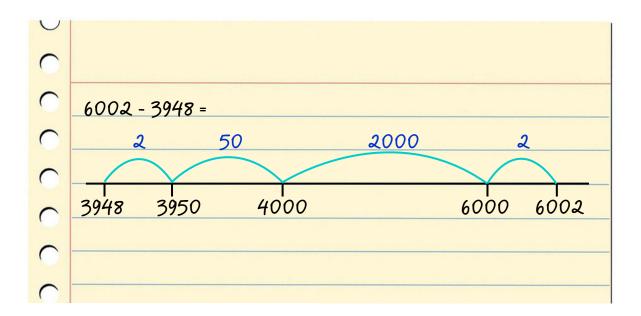> There are many possible answers here.

Things you will need:
• A pencil

What to do:

• Choose at least four subtractions to work out.
  Draw a line from the smaller number to the bigger number.
  Use Frog to work out the difference between the two numbers.

• Remember to add up your hops and jumps at the end!

6002 – 3948	7010 – 6937	5300 – 4965	4005 – 3971
9000 – 5672	6000 – 3583	8000 – 4548	

6002 - 3948 =

```
        2        50           2000         2
     3948  3950      4000              6000  6002
```

S-t-r-e-t-c-h:
Write a subtraction where you would use Frog and a subtraction where you would use another method.

Learning outcomes:
• I can use Frog to subtract 4-digit numbers from multiples of 1000 (e.g. 4000 – 3786).
• I can use Frog to subtract 4-digit numbers when the larger number has zeros
  (e.g. 4002 – 3987, 4020 – 3987, 4200 – 3987).
• I am beginning to decide when to use Frog and when to use another mental method.
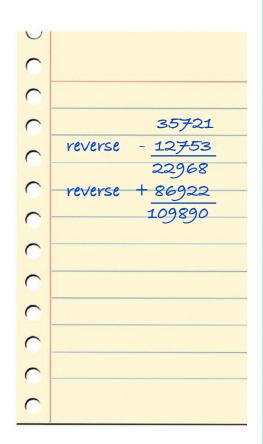
Investigation

What to do:

- Write a 5-digit number. Reverse the digits and write the new number.

- Subtract the smaller from the larger.

- Reverse the digits of the answer and add it to the new number,
  e.g. write 35,721 and subtract 12,753 to give 22,968.

- Now reverse the digits and add, i.e. add 22,968 and 86,922.
  What is the answer?

- Start with a new number 5-digit number.

$$
\begin{array}{r}
35721 \\
\text{reverse} \quad -\ 12753 \\
\hline
22968 \\
\text{reverse} \quad +\ 86922 \\
\hline
109890
\end{array}
$$