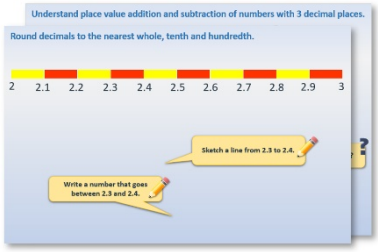
Week 1 Day 2
Subtract whole numbers: Mental & Written

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.



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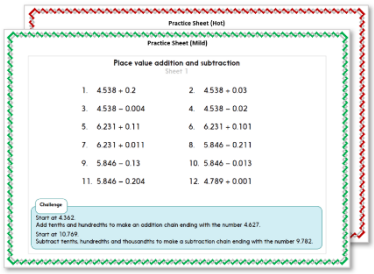
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either Mild (easier) or Hot (harder)! Check the answers.



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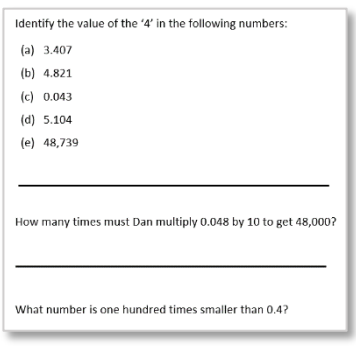
4. Have I mastered the topic? A few questions to **Check your understanding**. Fold the page to hide the answers!



Learning Reminders

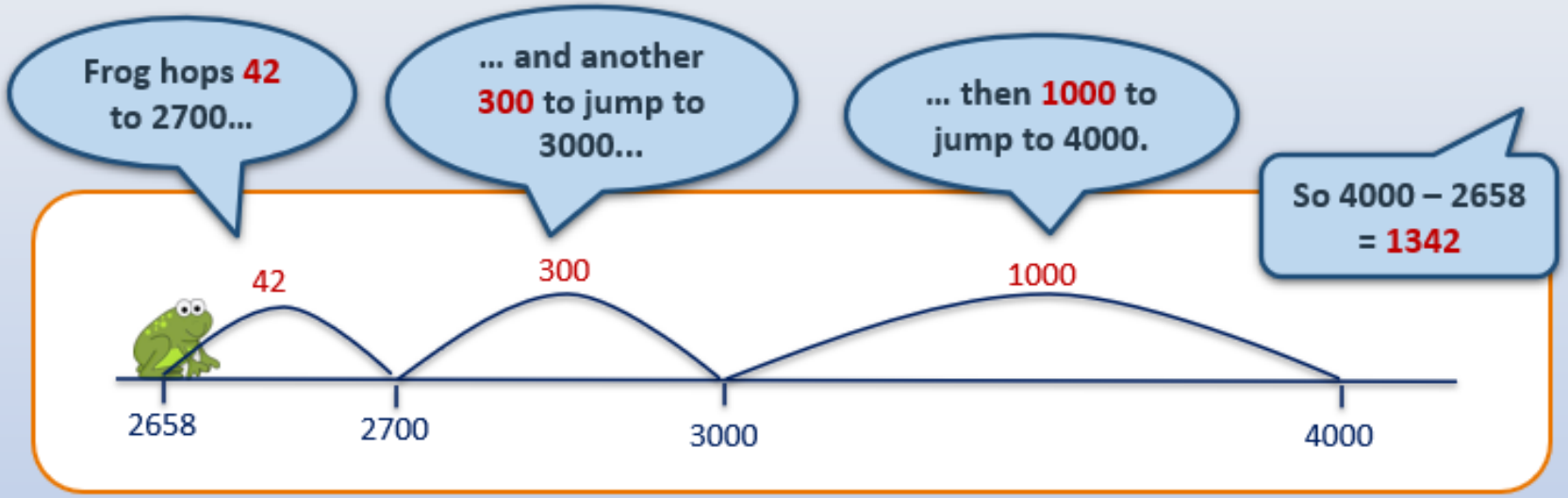
Use counting up (Frog) to subtract from multiples of 1000
(a mental strategy with jottings)

A group of people are cycling 4000 miles across America to raise money for charity.
So far they have travelled 2658 miles, so over half way.

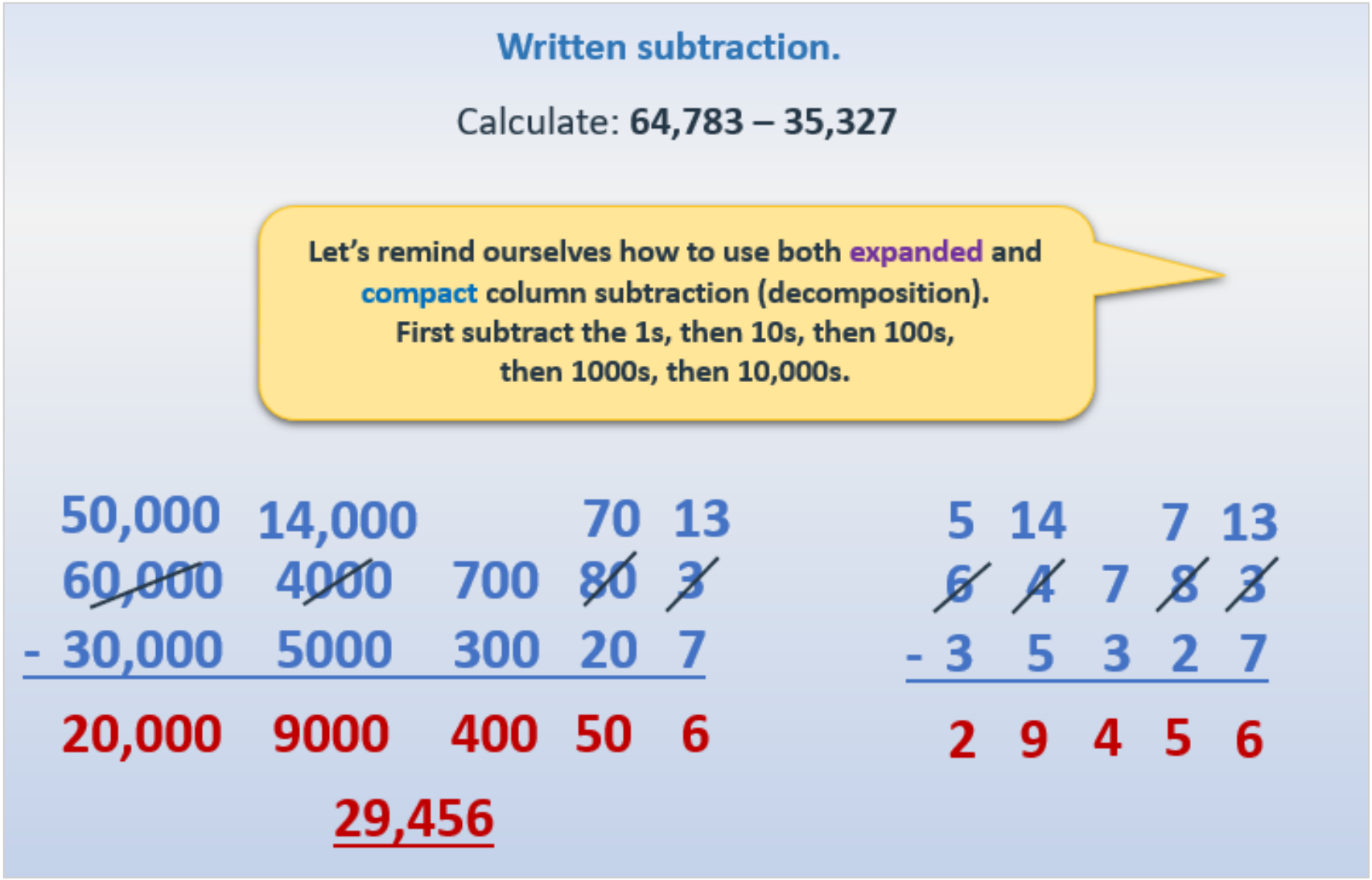
How much further do they have to go?

= 4000 - 2658

Use Frog to count up to find the difference!



Learning Reminders



Learning Reminders

Written subtraction.

Use either expanded or compact decomposition to calculate 72,846 – 47,063.

70,000	2000	800	40	6
- 40,000	7000	0	60	3

7	2	8	4	6
- 4	7	0	6	3

Answers here:

20,000	5000	700	80	3
- 40,000	7000	0	60	3
70,000	2000	800	40	6
60,000	12,000	700	140	

25,783

2	5	7	8	3
- 4	7	0	6	3
7	2	8	4	6
6	12	7	14	

Practice Sheet Mild
Multiples of 1000

Draw number lines to show Frog solving these problems:

1. 1000 – 573
2. 2000 – 1958
3. 6000 – 5839
4. 4000 – 2748
5. 5000 – 2349
6. 9000 – 4275
7. 8000 – 5624
8. 7000 – 3453
9. 3000 – 2222
10. 6000 – 3333

Challenge

Look at your number lines. Can you find some ways to solve the problems with fewer jumps?

Practice Sheet Mild

Subtracting 4-digit numbers

Complete each subtraction.

1. 4582 – 2317
2. 9635 – 2381
3. 5056 – 3214
4. 8264 – 2327
5. 6523 – 3289
6. 8236 – 5460
7. 4562 – 1684
8. 9450 – 5728

Choose two of your subtractions to check with addition.

Challenge

Find the missing digits in this subtraction:

□4 1□ - 1□ 3 6 = 7 0□ 7

Practice Sheet Hot

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?

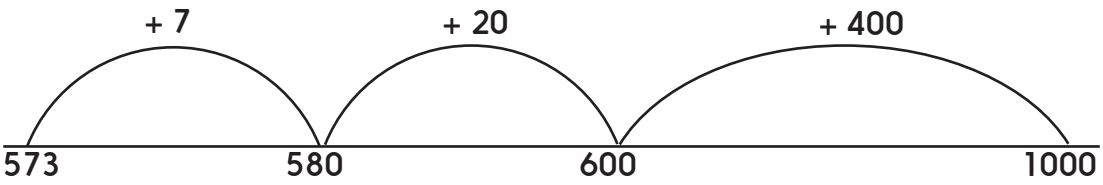
Challenge

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 Answers

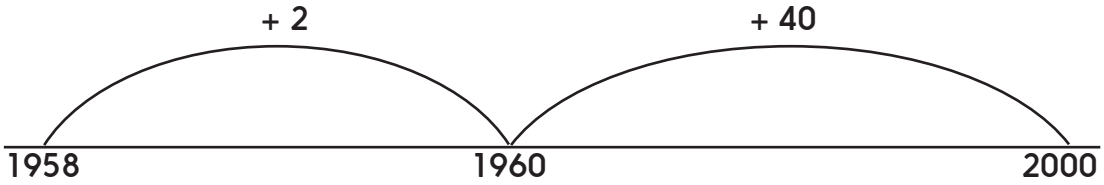
Multiples of 1000 (mild)

1. 1000 – 573



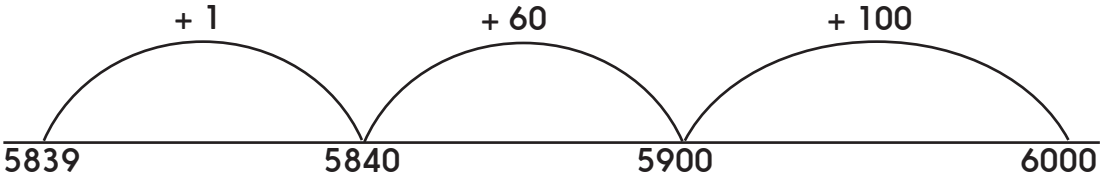
Add the hops: 400 + 20 + 7 = 427

2. 2000 – 1958



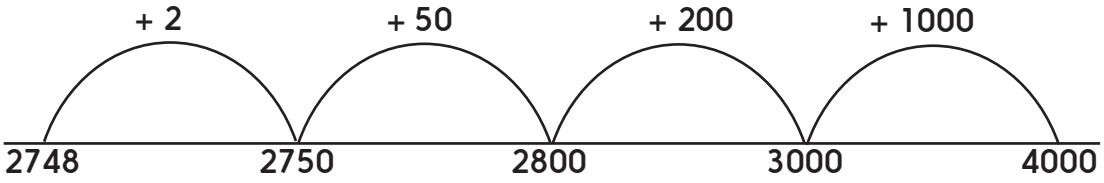
Add the hops: 40 + 2 = 42

3. 6000 – 5839



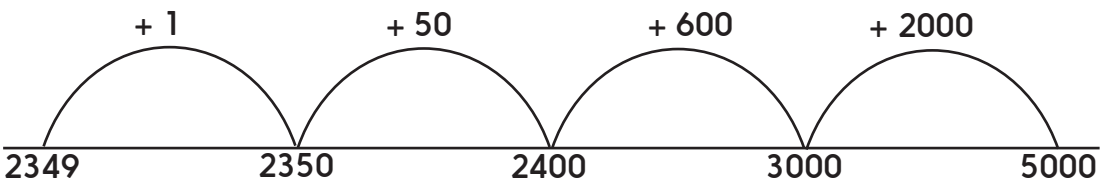
Add the hops: 100 + 60 + 1 = 161

4. 4000 – 2748



Add the hops: 1000 + 200 + 50 + 2 = 1252

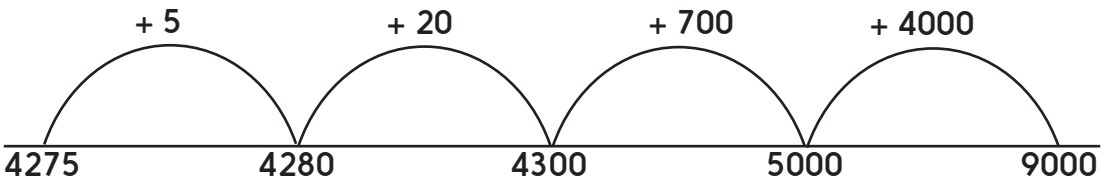
5. 5000 – 2349



Add the hops: 2000 + 600 + 50 + 1 = 2651

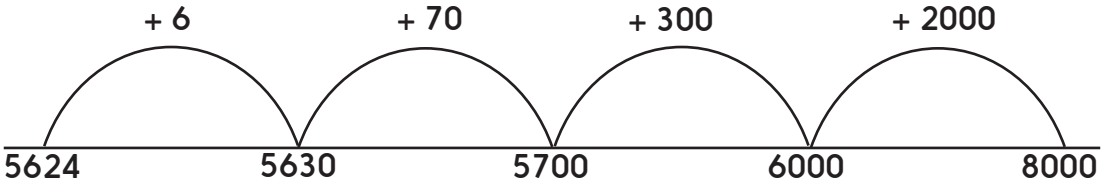
Multiples of 1000 (mild) continued

6. 9000 – 4275



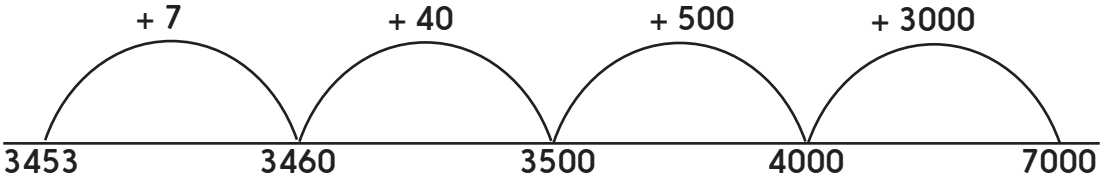
Add the hops: 4000 + 700 + 20 + 5 = 4725

7. 8000 – 5624



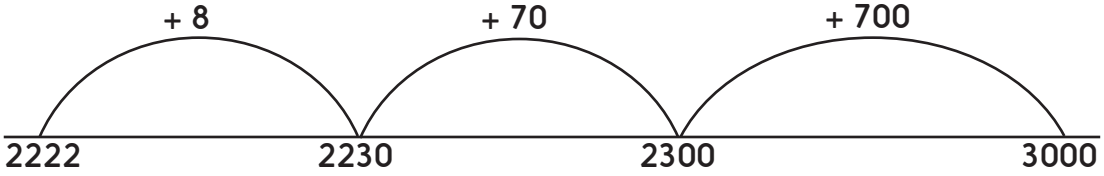
Add the hops: 2000 + 300 + 70 + 6 = 2376

8. 7000 – 3453



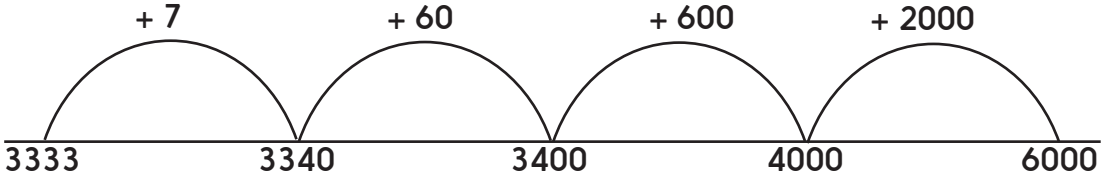
Add the hops: 3000 + 500 + 40 + 7 = 3547

9. 3000 – 2222



Add the hops: 700 + 70 + 8 = 778

10. 6000 – 3333



Add the hops: 2000 + 600 + 60 + 7 = 2667

Subtracting 4-digit numbers (mild)

1. 4582 – 2317 = 2265
2. 9635 – 2381 = 7254
3. 5056 – 3214 = 1842
4. 8264 – 2327 = 5937
5. 6523 – 3289 = 3234
6. 8236 – 5460 = 2776
7. 4562 – 1684 = 2878
8. 9450 - 5728 = 3722

Challenge

8413 - 1336 – 7077

Subtraction practice (hot)

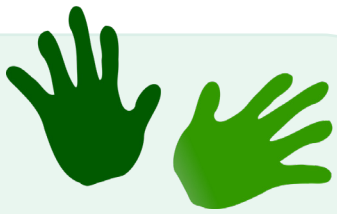
1. 64,784 - 21,529 = 43,255
2. 75,548 - 43,273 = 32,275
3. 86,347 - 33,720 = 52,627
4. 72,583 - 45,251 = 27,332
5. 56,421 - 24,175 = 32,246
6. 92,765 - 48,308 = 44,457
7. 45,287 - 38,145 = 7142. There is a difference of 7142 between their populations.
8. 63,564 - 52,382 = 11,182. The car drove 11,182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

Challenge

There are many possible answers here.

A Bit Stuck?
Hops, skips and jumps

Things you will need:
- A pencil



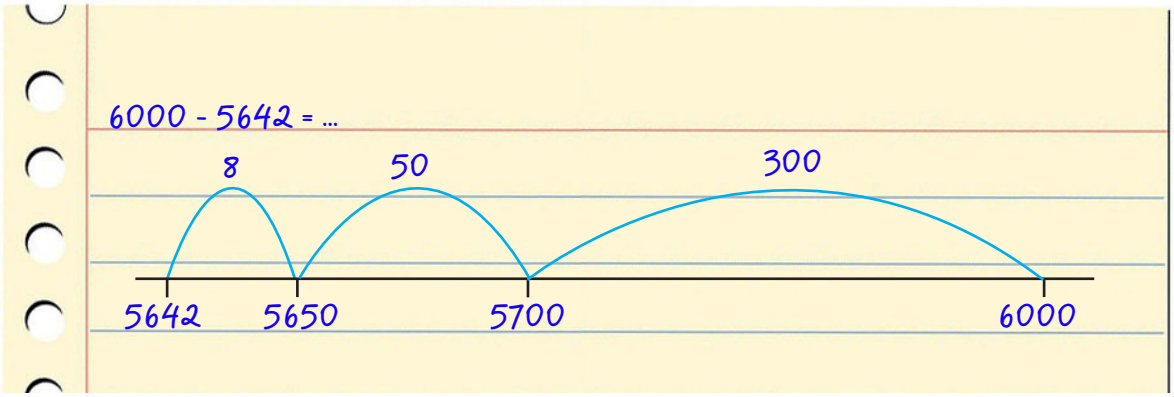
What to do:

- 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!

6000 – 5642 **6002 – 6938** **5000 – 3981**

4005 – 3964 **9000 – 4567** **6001 – 4983**

3004 – 2572



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

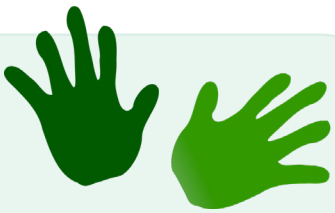
Work out the answers to 6003 – 4579 and 5010 – 3678.
Frog needs to work a bit harder for these!

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).
- I am beginning to use Frog to subtract pairs of 4-digit numbers which are further apart from each other.

A Bit Stuck?
Hop to hundreds, and beyond!

Work in pairs

Things you will need:
- A pencil

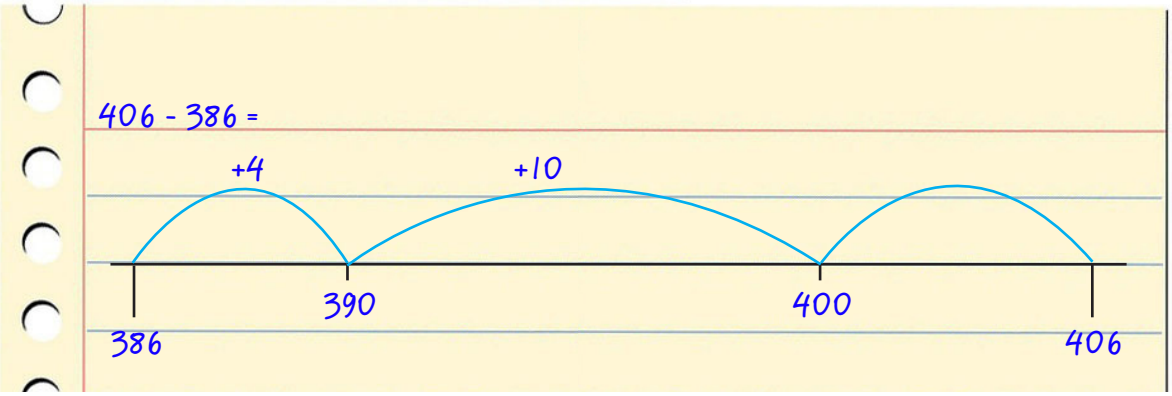


What to do:

- Take it in turns to be the teacher and to be the Frog.
  Choose a subtraction.
  Tell your partner, one step at a time, how to work out the answer to the subtraction.

- Work out as many subtractions as you can.

Hop, hop	**Hop, jump, hop**
305 – 298	406 – 386
802 – 794	203 – 175
603 – 597	501 – 468
506 – 495	604 – 559



S-t-r-e-t-c-h:
Choose two subtractions from the hop, hop section to check using addition.

Learning outcomes:
- I can use counting up (Frog) to subtract 3-digit numbers either side of a multiple of 100, e.g. 304 – 297, then 304 – 267.
- I am beginning to use addition to check subtraction.

Check your understanding

Questions

Use just the digits 4 and 5 to create a 5-digit – 5-digit subtraction to give an answer with at least two 9s.
Can you get 9091?
What is the smallest answer you can get?
What is the largest?

Explain why it would be sensible to choose different methods to solve (a) and (b) below.
(a) 67,493 – 21,561
(b) 50,005 – 44,878

Find the missing numbers in this subtraction:

$$\begin{array}{r} 12\bigstar 62 \\ -\ 93\blacksquare 8 \\ \hline 311\blacktriangle \end{array}$$

Fold here to hide answers:

Check your understanding

Answers

Use just the digits 4 and 5 to create a 5-digit – 5-digit subtraction to give an answer with at least two 9s.
e.g. 55,544 – 44,555. Other answers are possible; the key is to have 4s in the first number in the same place as 5s in the second.
Can you get 9091? 54,545 – 45,454.
What is the smallest answer you can get? 55,555 – 55,554 = 1.
What is the largest? 55,555 – 44,444 = 11,111

Explain why it would be sensible to choose different methods to solve (a) and (b) below.
(a) 67,493 – 21,561 45,932. Probably best by column subtraction, since neither number is close to 10,000s and exchanges between columns are needed.
(b) 50,005 – 44,878 5127. Since 50,005 is just over 50,000 this can be solved by counting up (Frog) from 44,878

Find the missing numbers in this subtraction:

$$\begin{array}{r} 512 \\ 12462 \\ -\ 9348 \\ \hline 3114 \end{array}$$