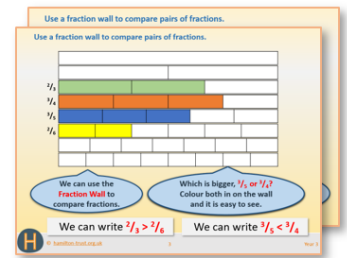


Week 15, Day 2

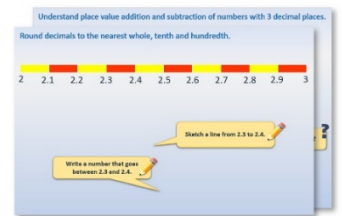
Subtraction strategies (2)

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

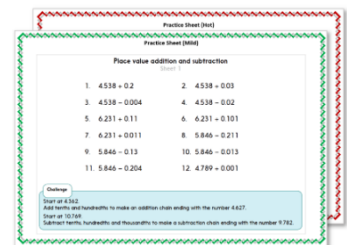
1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



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



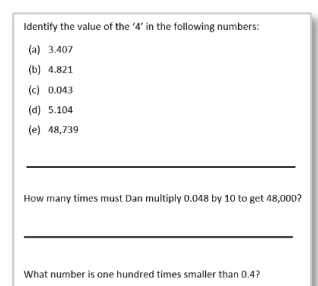
2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



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



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

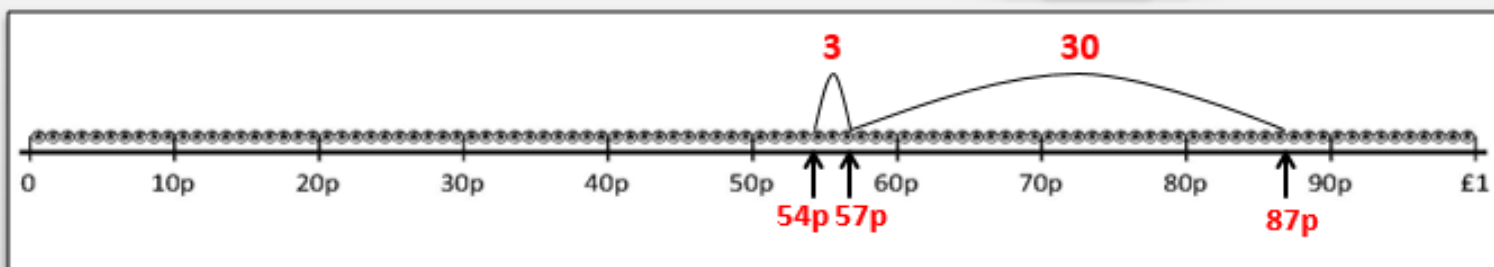


Learning Reminders

Subtract by counting up or counting back.

I have **87p** in my purse and want to spend **33p**. How much money will I have left?

We can **count back in 10s and 1s** from **87p** on a penny number line.



First count back three 10s...77, 67, **57**.

Then count back 3 ... 56, 55, **54**.

54p left. What number sentence can I write?

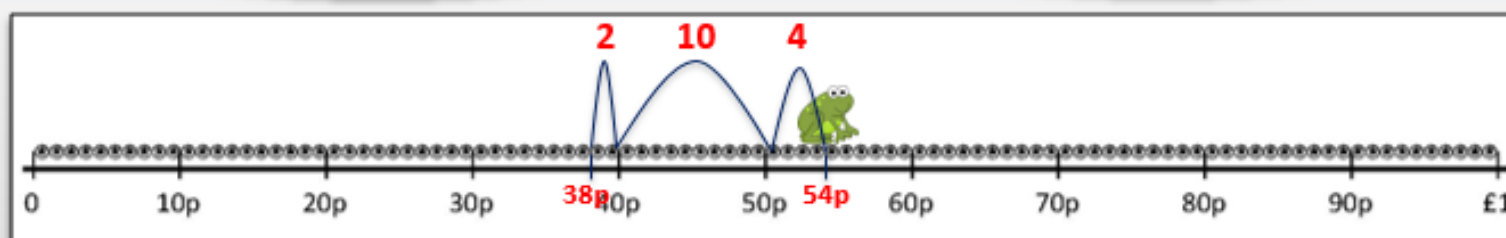
$$87p - 33p = 54p$$

Learning Reminders

Subtract by counting up or counting back.

Now I have **54p** in my purse and I want to spend **38p**. How much money will I have left?

54 and **38** are close together so we can use **Frog** to **count up** to find the difference.



Mark **38p** and **54p** on the line.

Frog starts at the smaller number and hops to the next 10.

Then Frog hops to **50, then 54.**

How far has he hopped altogether? What subtraction number sentence can we write?

$$54p - 38p = 16p$$

Learning Reminders

Subtract by counting up or counting back.

We have two ways of subtracting.
We can **count back** or we can **count up (Frog)**.

Try **72p - 55p** and **57p - 25p**.



There is no 'right' or 'wrong' choice of method but think about which might be more efficient, or straightforward for each.

$$72p - 55p = 17p$$

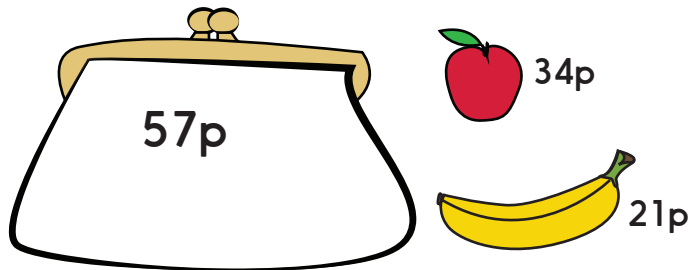
$$57p - 25p = 32p$$

Practice Sheet Mild

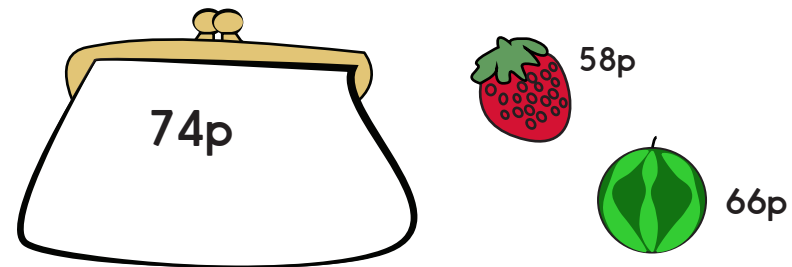
How much is left?

Buy one item. How much money will be left in each purse?

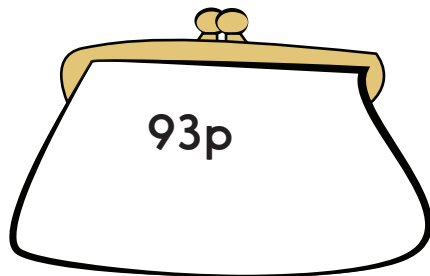
1. Calculate by counting back:



2. Calculate by counting up (Frog):



3. Decide which method you will use for the following amounts.
Write CU (counting up) or CB (counting back) next to each calculation to show how you worked it out.



Orange: 7p
Grapes: 81p
Lemons: 54p
Plum: 11p
Blueberries: 76p
Pears: 27p
Blackberries: 39p
Raspberries: 66p

Challenge

Find two more subtractions from 93p best solved by counting back, and two more best solved by counting up.

Practice Sheet Hot

Counting up or counting back?

Complete the following calculations, then draw a line to Frog (counting up) or spider and fly (counting back) to show which method you used.

$$45 - 4$$

$$38 - 32$$

$$41 - 18$$

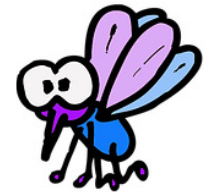
$$23 - 8$$

$$26 - 21$$

$$55 - 13$$

$$51 - 17$$

$$65 - 24$$



Challenge

Make up two more calculations to solve using each method (counting up and counting back).

Practice Sheets Answers

How much is left? (mild)

1.

Apple $57\text{p} - 34\text{p} = 23\text{p}$

Banana $57\text{p} - 21\text{p} = 36\text{p}$

2.

Strawberries $74\text{p} - 58\text{p} = 16\text{p}$

Watermelon $74\text{p} - 66\text{p} = 8\text{p}$

3.

$93\text{p} - 7\text{p} = 86\text{p}$ (CB, bridging through 90p)

$93\text{p} - 81\text{p} = 12\text{p}$ (CU)

$93\text{p} - 54\text{p} = 39\text{p}$ (CU)

$93\text{p} - 11\text{p} = 82\text{p}$ (CB)

$93\text{p} - 76\text{p} = 17\text{p}$ (CU)

$93\text{p} - 27\text{p} = 66\text{p}$ (CU)

$93\text{p} - 39\text{p} = 54\text{p}$ (CU)

Challenge

Accept two subtractions from 93p that can be solved by counting up, e.g.

$93\text{p} - 62\text{p} = 31\text{p}$ $93\text{p} - 29\text{p} = 64\text{p}$

and two by counting back, e.g.

$93\text{p} - 12\text{p} = 81\text{p}$ $93\text{p} - 8\text{p} = 85\text{p}$

Counting up or counting back? (hot)

$45 - 4 = 41$ (Fly: count back 4, recognising $5 - 4 = 1$)

$38 - 32 = 6$ (Frog, recognising the number fact $2 + 6 = 8$)

$41 - 18 = 23$ (Frog)

$23 - 8 = 15$ (Fly, count back, bridging through 20)

$26 - 21 = 5$ (Frog recognising the number fact $1 + 5 = 6$)

$55 - 13 = 42$ (Spider and Fly)

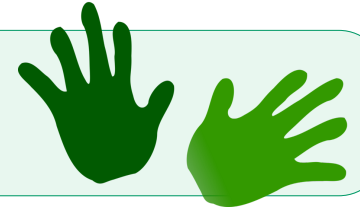
$51 - 17 = 34$ (Either strategy would be justified)

$65 - 24 = 41$ (Spider and Fly)

A Bit Stuck? A hop and a jump

Things you will need:

- A pencil



What to do:

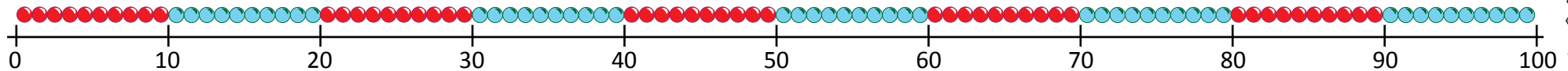
Mark the first number in the sum on the line.

Work out how much is needed to make the next 10, and then

the next 10 after that. Remember to use your pairs to 10 to help you. Fill in the answers.

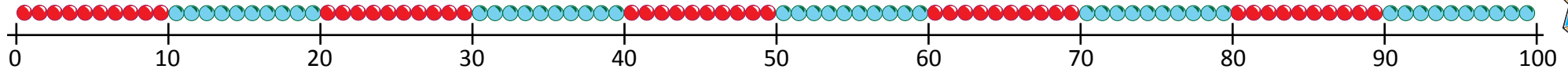
1. $56 + \square = 60$

$56 + \square = 70$



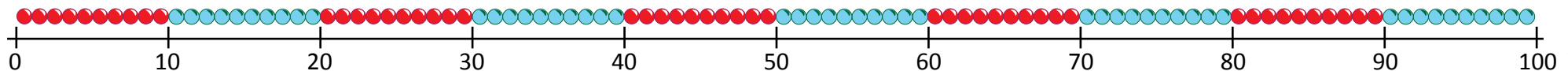
2. $63 + \square = 70$

$63 + \square = 80$



3. $35 + \square = 40$

$35 + \square = 50$

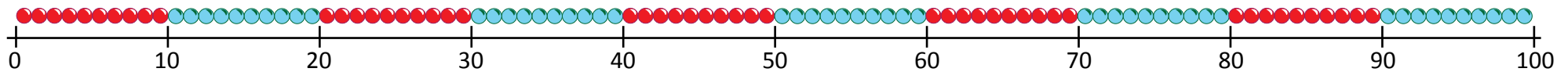


A Bit Stuck?

A hop and a jump

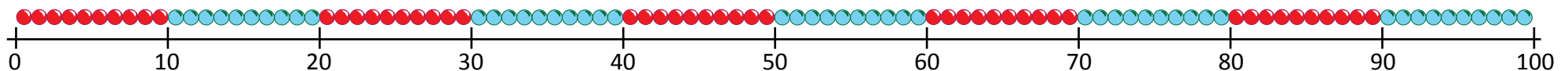
4. $48 + \square = 50$

$48 + \square = 60$



5. $71 + \square = 80$

$71 + \square = 90$



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

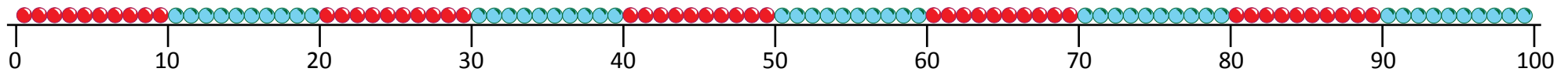
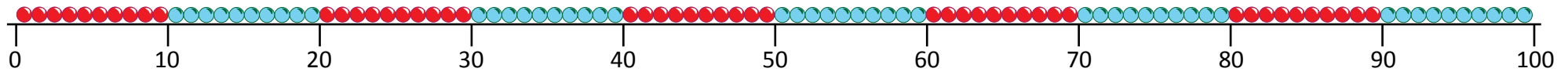
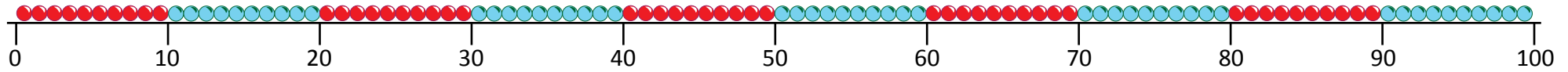
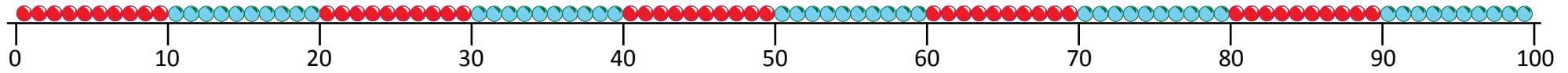
Use the last two lines to help you to find the answers to these sums:

$48 + \square = 100$ $71 + \square = 100$

Learning outcomes:

- I can use landmark lines and number facts to work out how many more to the next 10, e.g. $37 + \square = 40$.
- I am beginning to work out how many to the next 10 after that, e.g. $37 + \square = 50$.

A Bit Stuck? A hop and a jump



Check your understanding

Questions

Choose whether to use *Frog* to count up or whether to count back:
Explain why you chose that method...

- $62 - 38$
- $66 - 33$
- $75 - 6$
- $83 - 79$
- $84 - 12$
- $24 - 18$

Fold here to hide answers.

Check your understanding

Answers

Choose whether to use *Frog* to count up or whether to count back:
Explain why you chose that method...

- $62 - 38$ 24
- $66 - 33$ 33
- $75 - 6$ 69
- $83 - 79$ 4
- $84 - 12$ 72
- $24 - 18$ 6

Children should realise that counting up (*Frog*) is probably best used when numbers are close together (e.g. $83 - 79$) or when the 1s digit of the smaller number is greater than the 1s digit of the larger number (e.g. $62 - 38$). Counting back is probably best when the difference between numbers is greater (e.g. $84 - 12$), or when the 1s digit of the smaller number is smaller than the 1s digit of the larger number (e.g. $66 - 33$), although either method could be used.