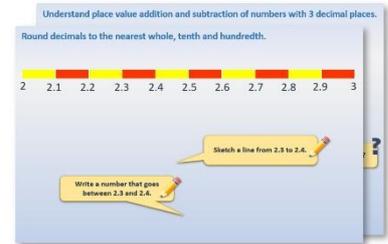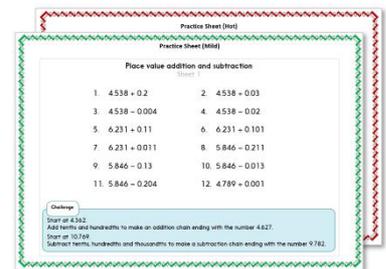# Week 7, Day 3
Use counting up (Frog) to solve subtraction word problems.
Each day covers one maths topic. It should take you about 1 hour or just a little more.

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!
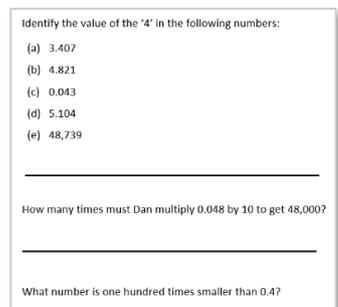
Learning Reminders

Use counting up (Frog) to solve subtraction word problems.

This table shows the prices in two bike shops.

Item	Shop A	Shop B
Cycle computer	£14.97	£18.50
Cycle helmet	£25.99	£21.49
Waterproof coat	£45.99	£38.75
Cycling gloves	£14.79	£11.25
Cycling jersey	£37.89	£32.49
Cycling shorts	£24.75	£25.49

We can use Frog to find the exact difference between the two prices of each item.

Cycle computer

3p   £3   50p

£14.97 £15   £18   £18.50

Frog jumps 3p to £15, then £3 to £18, then 50p to £18.50.
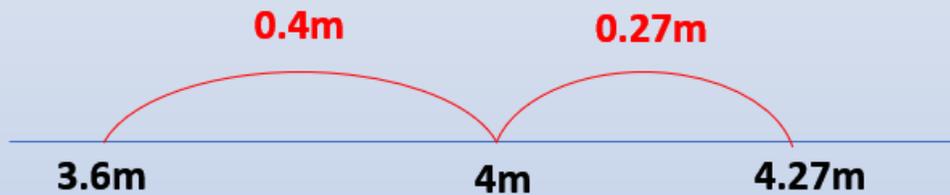
3p + £3 + 50p = £3.53.

Learning Reminders

Use counting up (Frog) to solve subtraction word problems.

A room measures 3.6m by 4.27m. How much more is the length than the width?

Read the problem carefully. Think what you would need to do with the numbers to solve it. Write the calculation needed. Solve it!

4.27m - 3.6m

We can count up with Frog!

0.4m   0.27m

0.4m + 0.27m = 0.67m

3.6m   4m   4.27m

Learning Reminders

Use counting up (Frog) to solve subtraction word problems.

Grandma is making some curtains. The material she has is 5 metres long. She makes two curtains, each 2.37m long. How much material does she have left?
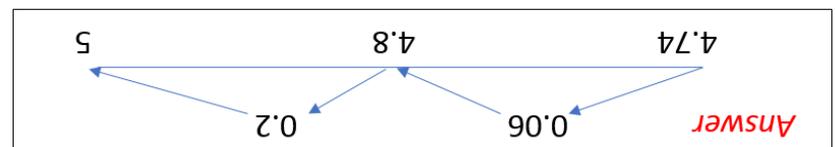
> Drawing **a bar model** can help us understand a problem, especially when there are **2 steps** needed!

5 metres		
2.37m	2.37m	??

> First find double 2.37m then count up using Frog to find how much material is left.

1. Double 2.37m is 4.74m.

2. 5m - 4.74m = 0.26m.

Answer (shown inverted): 4.74 → 0.06 → 4.8 → 0.2 → 5

Practice Sheet Mild
Word problems

Use Frog to help solve these word problems

1. Carla has £50 for her birthday. She spends £37.89 on books and music downloads. How much does she have left?

2. Last year Sam was 1.56m tall. This year he is 1.63m tall. How much has he grown?

3. A room measures 3.6m by 4.27m. How much more is the length than the width?

4. Grandma is making some curtains. The material she has is 5 metres long. She makes two curtains, each 2.37m long. How much material does she have left?

5. Auntie Sarah is making two picture frames. She needs 1.68m of wood for the first, and 2.14m for the second. She has 4.2m of wood. How much will be left if she doesn't make any mistakes?

6. Grandad buys a £4.99 book for each of his 6 grandchildren. How much change does he get from £50?

7. A peak rail ticket is £45.80, whereas an off-peak rail ticket for the same journey is £27.59. How much cheaper is the off-peak ticket?

8. A group of four friends are sharing the cost of takeaway pizzas. The pizzas cost £24.84. How much change would each friend get from £10?

Practice Sheet Hot
Word problems

Use Frog to help solve these word problems

1. Carla has £50 for her birthday. She spends £25.27 on books and £12.64 on music downloads. How much money does she have left?

2. Last year Sam was 1.56m tall. This year he is 1.63m tall. Elena was 1.48m and is now 1.53m. Who has grown most?

3. A room measures 3.6m by 4.27m. Dieter thinks the perimeter is about 14 metres. How accurate is his estimate?

4. Grandma is making some curtains. The material she has is 10 metres long. She makes two curtains, each 2.37m long and two curtains each 1.65m long. How much material does she have left?

5. Auntie Sarah is making three picture frames. She needs 1.68m of wood for the first, 2.3m for the second and 0.9m for the third. She has 5.2m of wood. How much will be left if she doesn't make any mistakes?

6. Grandad buys a £4.99 book and a £1.25 card for each of his 6 grandchildren. How much change does he get from £50?

7. A peak rail ticket is £45.80, whereas an off-peak rail single ticket is £12.89 and peak ticket for the return journey is £21.45. How much cheaper is it to buy the two single tickets than the peak return ticket?

8. A group of six friends are sharing the cost of takeaway pizzas. The pizzas cost £48.72. How much change would each friend get from £10?

Practice Sheets Answers

Word problems (mild)

1. Carla has £12.11 left.
2. Sam has grown 0.07m (7cm) in the last year.
3. The length is 0.67m (67cm) longer than the width.
4. Grandma has 0.26m (26cm) of material left.
5. Auntie Sarah will have 0.38m (38cm) of wood left.
6. Grandad gets £20.06 change.
7. The off-peak ticket is £18.21 cheaper than the peak rail ticket.
8. Each of the friends would get £3.79 change each.

Word problems (hot)

1. Carla has £12.09 left.
2. Sam has grown 0.07m (7cm) and Elena has grown 0.05m (5cm). Sam has grown most in the last year.
3. The perimeter is 15.74m so Dieter is 1.74m out.
4. Grandma has 1.96m (196cm) of material left.
5. Auntie Sarah will have 0.32m (32cm) of wood left.
6. Grandad gets £12.56 change.
7. It is £11.46 cheaper to buy two singles than the peak return ticket.
8. Each of the friends would get £1.88 change each.

Colouring Pencils £3.79

£2.68

£2.85

£3.39

£1.78

£2.22
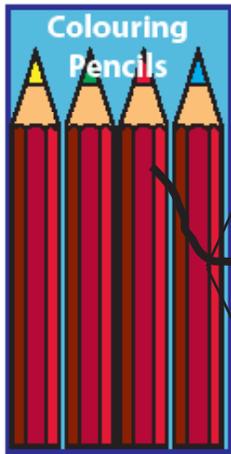
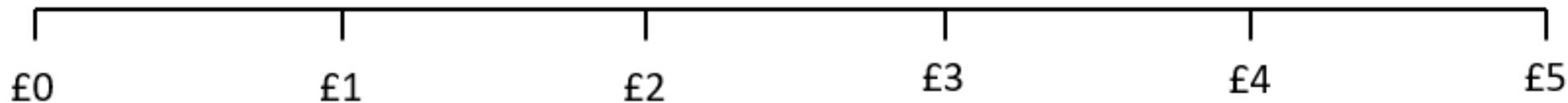Find the change from £5 for each of these six prices.

Challenge

I spend £2.42. Do I have enough money left to buy a notebook?

Finding change

£0   £1   £2   £3   £4   £5

Check your understanding
Questions

Fill the empty boxes:

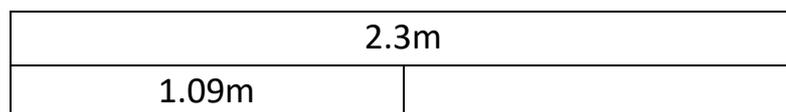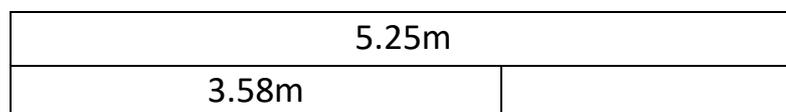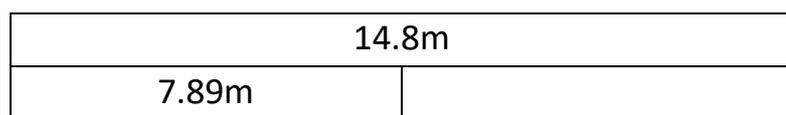0.86 = 8.6 ☐ 10

319 = ☐ x 100

☐ ÷ 100 = 8.2

7.1 = ☐ ÷ 1000

True or False?

When you divide a 4-digit number by 100, you end up with a 2-digit number.

Write the missing length in each bar diagram.

14.8m	
7.89m	

5.25m	
3.58m	

2.3m	
1.09m	

Sunil and Zoe were meeting. They cycled 25 Km between them.

Zoe cycled 11.47km. How far did Sunil cycle?

Answers on next page

Check your understanding
Answers

Fill the empty boxes:

0.86 = 8.6 $\boxed{÷}$ 10

319 = $\boxed{3.19}$ x 100

$\boxed{820}$ ÷ 100 = 8.2

7.1 = $\boxed{7100}$ ÷ 1000

Check on a place value grid.

True or False?

When you divide a 4-digit number by 100, you end up with a 2-digit number.

Usually false. True only if the number ends with two zeros, e.g. 4300 ÷ 100 = 43.

Bar model calculations
6.91m, 1.67m, 1.21m   Probably best-solved by counting up (Frog) from the smaller to larger number.

25km – 11.47km = 13.53km