# Week 12, Day 3

Using counting up (Frog) to find change

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

Start by reading through the Learning Reminders. 1. They come from our *PowerPoint* slides.

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

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

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





| l | Identify the value of the '4' in the following numbers:     |
|---|---|
| L | (a) 3.407   |
| L | (b) 4.821   |
| L | (c) 0.043   |
| L | (d) 5.104   |
| L | (e) 48,739  |
|   | How many times must Dan multiply 0.048 by 10 to get 48,000? |
|   | What number is one hundred times smaller than 0.4?          |





## **Learning Reminders**



### **Learning Reminders**







# **Practice Sheets Answers**

#### Finding change (mild)

| Α | £6.12 |
|---|-------|
| В | £4.33 |
| С | £2.25 |
| D | £9.32 |

- £9.32
- £12.45

Е

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### Challenge

You can afford items D and E, with a total of  $\pounds$ 18.23. Change =  $\pounds$ 1.77

### Finding change (hot)

| Α | £6.52  |
|---|--------|
| В | £14.23 |
| С | £21.18 |
| D | £32.61 |
| E | £11.55 |
|   |        |

Challenge

You can afford items C and D, with a total of  $\pounds 46.21$ . Change =  $\pounds 3.79$ 

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## A Bit Stuck? Finding change from £10 and £20

Use Frog to solve these change problems.

You have £10. How much change will you get if you buy the following:

- 1. Cheese on toast with salad £5.61
- 2. Ice cream sundae £4.55
- 3. Ploughman's lunch £7.99
- 4. Afternoon tea £8.88
- 5. Pancake stack £4.22

You have £20. How much change will you get if you buy the following:

- 6. Pizza £13.66
- 7. Spaghetti bolognaise £14.51
- 8. Burger and chips £11.79



#### Challenge

Choose any two items from the menus. How much change will you get from  $\pounds 20$ ? Be careful not to spend more than  $\pounds 20$ .

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## A Bit Stuck? Answers

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### Finding change from £10 and £20

| 1.  | £10 - £5.61 = <mark>£4.39</mark>            |
|-----|---|
| 2.  | £10 - £4.55 = <mark>£5.45</mark>            |
| 3.  | £10 - £7.99 = <mark>£2.01</mark>            |
| 4.  | $\pm 10 - \pm 8.88 = \pm 1.12$              |
| 5.  | $\pm 10 - \pm 4.22 = \pm 5.78$              |
|     |   |
| 6.  | £20 - £13.66 = <mark>£6.34</mark>           |
| 7.  | £20 - £14.51 = <mark>£5.49</mark>           |
| 8.  | £20 - £11.79 = <mark>£8.21</mark>           |
| 9.  | $\pounds 20 - \pounds 12.87 = \pounds 7.13$ |
| 10. | $\pounds 20 - \pounds 9.28 = \pounds 10.72$ |

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## Check your understanding Questions

Use Frog to find the difference between the cost of two plants, one costing £15.23 and one costing £13.78.

Jess had £30 and bought a computer game for £23.87. Del had £20 and bought a book for £12.65. Use Frog to check who had the most money left...

True or false? Explain your ideas...

- Subtracting from a multiple of 1000, it is best to use Frog.
- Subtracting a 3-digit number from a 4-digit number always gives an answer greater than 1000.
- Subtracting 4827 from 7284 will only involve moving amounts from one column.
- Subtracting 895 from 2222, column subtraction is not the best method.

## **Check your understanding**

### Answers

Use Frog to find the difference between the cost of two plants, one costing £15.23 and one costing £13.78. £1.45.

Jess had £30 and bought a computer game for £23.87. Del had £20 and bought a book for £12.65. Use Frog to check who had the most money left.... Jess had £6.13 left, Del £7.35.

True or false? Explain your ideas...

- Subtracting from a multiple of 1000, it is best to use Frog. True since there are no 100s, 10s or 1s, column subtraction could be error-prone.
- Subtracting a 3-digit number from a 4-digit number always gives an answer greater than 1000. False, e.g. 1342 781. Any example where the 4-digit number begins with 1 and the 100s, 10s, 1s part is smaller than the 3-digit number being subtracted gives an answer less than 1000.
- Subtracting 4827 from 7284 will only involve moving amounts from one column. False since both the 100s and the 1s in 4827 are smaller than in 7284.
- Subtracting 895 from 2222, column subtraction is not the best method. Probably best solved by counting up since 895 is a near multiple of 100 (a jump of 105 to 1000, then a jump of 1000 to 2000, then a jump of 222 to 2222). It would be a tricky column subtraction involving 3 exchanges.

These are example explanations – credit children for an explanation which is justified with examples.