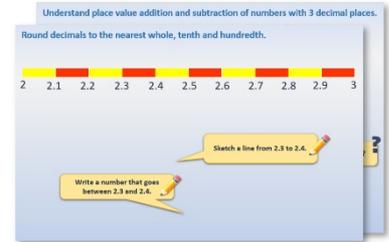# Year 5: Week 3, Day 3
Short multiplication (money)

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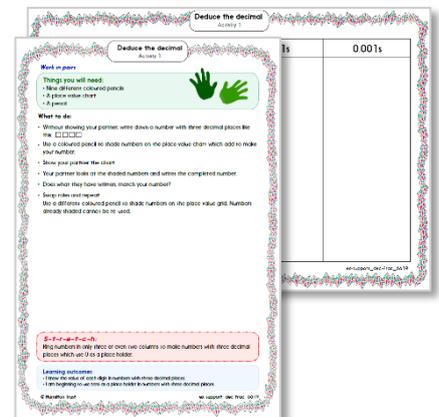
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.
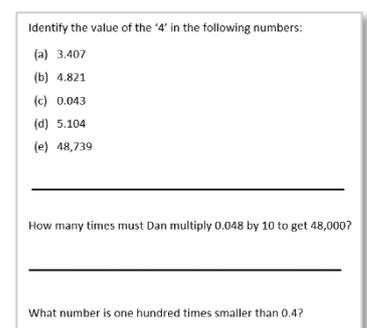

2. Tackle the questions on the **Practice Sheet**. There might be a choice of either Mild (easier) or Hot (harder)! Check the answers.

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 short multiplication to multiply 4-digit amounts of money by 1-digit numbers.

A shop sells 6 hoodies, each priced £25.79.
We are going to find the total amount.

6 x £25.79

×	£20	£5	70p	9p	
6	£120	£30	£4.20	54p	£154.74

6 x 70p = £4.20

Add the pounds, then the pence.

£ 2 5.7 9
×   6

Take special care with place value when multiplying with money. It is particularly helpful to estimate first...

3 4 5
£ 1 5 4.74

(6 x 70p) + 50p = £4.70

Learning Reminders

Use short multiplication to multiply 4-digit amounts of money by 1-digit numbers.

A shop sells 7 pairs of jeans, each priced £34.45.
We are going to find the total amount.

What would be a good estimate? **?**

7 x £34.45

×	£30	£4	40p	5p	
7	£210	£28	£2.80	35p	£241.15

7 x 40p = £2.80

Add the pounds, and then the pence.

```
  £ 3 4.4 5
×         7
    3 3 3
  £ 2 4 1.1 5
```

Does this answer look about right? **?**

7 x 40p + 30p = £3.10

Practice Sheet Mild
Multiplying money

1. Which of these multiplications do you think will have the greatest answer?

   3 x £4.28   5 x £5.17   4 x £8.32   6 x £2.51

   Calculate each to check.

2. A shop sells the following items. Calculate how much they take for each item:

   4 beanies at £7.24 each
   6 water bottles at £3.65 each
   8 wristbands at £2.78 each

Practice Sheet Hot
Multiplying money

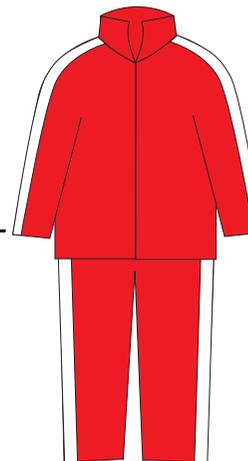£46.55   £24.60   £31.66   £19.49   £38.75

1.   Which of these would cost more than £200? Estimate each then calculate the costs.

   a)   5 pairs of trainers
   b)   4 tracksuits
   c)   7 footballs
   d)   8 sports bags
   e)   7 tennis rackets

2.   Which do you think would cost more?
      Estimate each then calculate the costs.

   a)   6 pairs of trainers or 7 tracksuits?
   b)   9 sports bags or 6 footballs?
   c)   6 tennis rackets, 4 tracksuits or 3 pairs of trainers?

Challenge

Five children each buy a sports bag, a tennis racket and pair of trainers. How much do they spend altogether?

© Hamilton Trust

Practice Sheet Answers

Multiplying money (mild)

Which of these multiplications do you think will have the greatest answer?

    4 x £8.32

    Rounding each amount to the nearest pound helps children to see which will have the greatest answer

    3 x £4.28 = £12.84

    5 x £5.17 = £25.85

    4 x £8.32 = £33.28

    6 x £2.51 = £15.06

A shop sells the following items. Calculate how much they take for each item:

    4 beanies at £7.24 each   £28.96

    6 water bottles at £3.65 each   £21.90

    8 wristbands at £2.78 each   £22.24

Multiplying money (hot)

1.   a)   £232.75
        b)   £155
        c)   £221.62
        d)   £155.92
        e)   £172.20

2.   a)   <u>6 pairs of trainers = £279.30</u> 7 tracksuits = £271.25

        b)   9 sports bags = £175.41
              <u>6 footballs = £189.96</u>

        c)   6 tennis rackets = £147.60 <u>4 tracksuits = £155</u>
              3 pairs of trainers = £139.65

> **Challenge**
>
> Sports bag + tennis racket + trainers = £19.49 + £24.60 + £46.55 = £90.64
>
> If 5 children all buy the same 3 items total cost = £453.20

Try this activity with a partner, but record your calculations on your own sheet.

What to do:

• Use the grid method to work out the answers to these multiplications.

3 x £3.25

×	£3	20p	5p	
3				

5 x £4.23

×	£4	20p	3p	
5				

4 x £6.35

×	£6	30p	5p	
4				

• Next choose at least two multiplications and draw your own grids to keep track of your steps.

7 x £1.32   6 x £2.17   8 x £1.31   5 x £4.18

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

Which of these multiplications will have the biggest answer?

Which will have the smallest answer?

8 x £2.36   6 x £5.21   2 x £6.33

Learning outcomes:
• I can use the grid method to multiply 3-digit amounts of money by 1-digit numbers.
• I am beginning to estimate the answers.

© Hamilton Trust

Check your understanding
Questions

A shop sells 6 boxes of chocolates at £12.79 a box and 8 chocolate bunnies at £5.38 each. How much did they take in total?

Which of these multiplications will have an answer greater than £100? How do you know?

4 x £24.78   6 x £18.45   5 x £16.48   7 x £15.27

Write three multiplications with answers between £150 and £200.

Fold here to hide answers

Check your understanding
Answers

A shop sells 6 boxes of chocolates at £12.79 a box and 8 chocolate bunnies at £5.38 each. How much did they take in total?   £76.74 + £ 43.04 = £119.78

Which of these multiplications will have an answer greater than £100? How do you know?

4 x £24.78 (£99.12)   6 x £18.45 (£110.70)   5 x £16.48 (£82.40)   7 x £15.27 (£106.89)

Does children's reasoning make sense? E.g.

4 x £24.78 is less than 4 x £25, which is £100. Therefore 4 x £24.78 < £100.

6 x £18 is £108, therefore 6 x £18.45 > £100.

Rounding up, 5 x £17 = £85, so 5 x £16.48 < £100

7 x £15 = £105, so 7 x £15.27 > £100.

Write three multiplications with answers between £150 and £200.

Any multiplications with answers in this range. Did children use rounding to help?