

Yr 4 Addition Unit 4 (4663)

Additional teacher instructions for practice sheets

These notes indicate which practice sheets are most appropriate for which groups.

Day 1 Counting up Sheet 1

Working towards ARE

Day 1 Counting up Sheet 2

Working at ARE sketch ENLs to show their jumps.

Greater Depth draw just 2 jumps on their ENLs.

Day 2 Expanded subtraction Sheet 1

Working towards ARE start at Q1. They use Base 10 to model their subtractions.

Working at ARE start at Q5.

Greater Depth start at Q5 and first write the subtractions in order according to which will give the smallest or greatest answers.

Day 3 Subtraction Sheet 1

Working towards ARE

Day 3 Choosing a method for Subtraction Sheet 2

Working at ARE

Day 3 Choosing a method for Subtraction Sheet 3

Greater Depth

Day 4 Find the subtraction mistakes Sheet 1

Working towards ARE

Day 4 Find the subtraction mistakes Sheet 2

Working at ARE

Day 4 Find the subtraction mistakes Sheet 3

Greater Depth

Counting up

Sheet 1

Practise using counting up to solve these subtractions.
Sketch empty number lines to show your steps.

$$712 - 655$$

$$623 - 589$$

$$535 - 478$$

$$615 - 575$$

$$722 - 684$$

$$525 - 449$$

$$616 - 535$$

$$607 - 569$$

$$925 - 795$$

$$814 - 685$$

Counting up

Sheet 2

Sketch an empty number line to help you to calculate these subtractions.

1. $745 - 588$

2. $762 - 584$

3. $925 - 767$

4. $623 - 489$

5. $755 - 448$

6. $826 - 682$

7. $535 - 378$

8. $756 - 437$

9. $537 - 373$

10. $615 - 476$

11. $634 - 469$

12. $1002 - 735$

Challenge

Subtract 989 from 1000. Then subtract 878 from 1000. Then 767, then 656 etc. each from 1000.
Describe the pattern of the answers.

Expanded subtraction

Sheet 1

Use expanded column subtraction to solve these calculations.

1. $265 - 134$

2. $598 - 372$

3. $682 - 456$

4. $364 - 149$

5. $472 - 253$

6. $745 - 561$

7. $874 - 246$

8. $855 - 278$

9. $952 - 685$

10. $344 - 175$

11. $535 - 488$

12. $746 - 467$

Challenge

Write a 3-digit number. Subtract it from 999. Now say the answer if you were to subtract it from 1000. Check using Frog to subtract it from 1000.

Repeat with another 3-digit number.

Subtraction

Sheet 1

Choose whether to use counting up (Frog) or expanded column subtraction.

$453 - 348 =$

$958 - 482 =$

$674 - 427 =$

$607 - 572 =$

$826 - 645 =$

$803 - 641 =$

$725 - 532 =$

$520 - 315 =$

$847 - 673 =$

$630 - 527 =$

Choosing a method for subtraction

Sheet 2

Choose whether to use counting up or the new expanded method to solve each of these subtractions.

$$501 - 374$$

$$475 - 236$$

$$585 - 127$$

$$263 - 198$$

$$864 - 681$$

$$342 - 175$$

$$702 - 457$$

$$607 - 239$$

Challenge

Write a 3-digit number which is bigger than 350, where the two 'outside' digits add to make the 'middle' digit, e.g. 462 or 792 or 781.

Now subtract 319.

What do you notice about the two outside digits and the middle digit of the answer?

Choosing a method for subtraction

Sheet 3

Choose whether to use counting up or the new written method to solve each of these subtractions.

$$394 - 167$$

$$952 - 590$$

$$610 - 481$$

$$846 - 789$$

$$655 - 368$$

$$1002 - 748$$

$$803 - 472$$

$$2013 - 838$$

Challenge

Write a 3-digit number which is bigger than 350, where the two 'outside' digits add to make the 'middle' digit, e.g. 462 or 594 or 682.

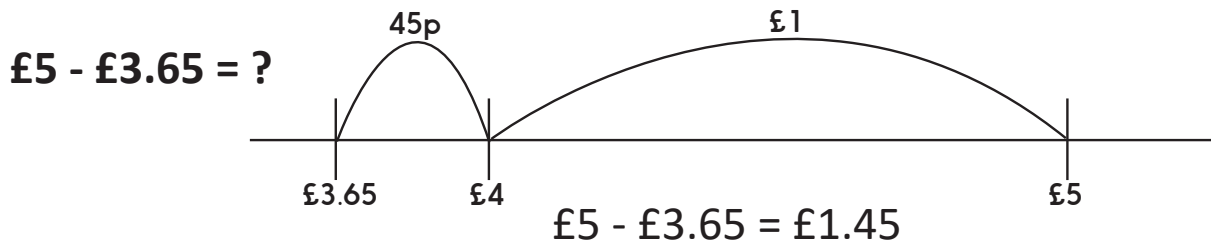
Now subtract 319.

What do you notice?

Find the subtraction mistakes

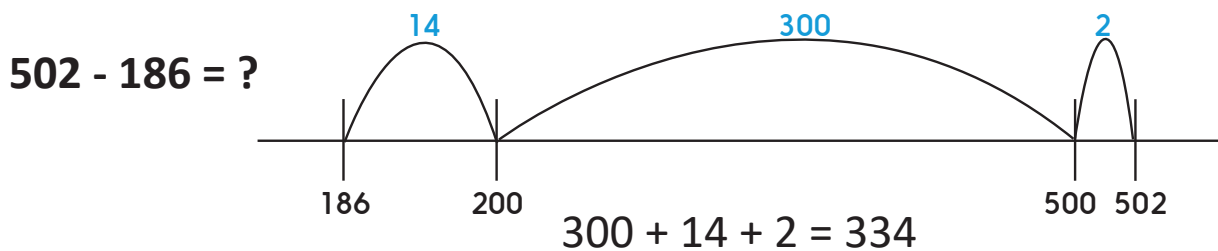
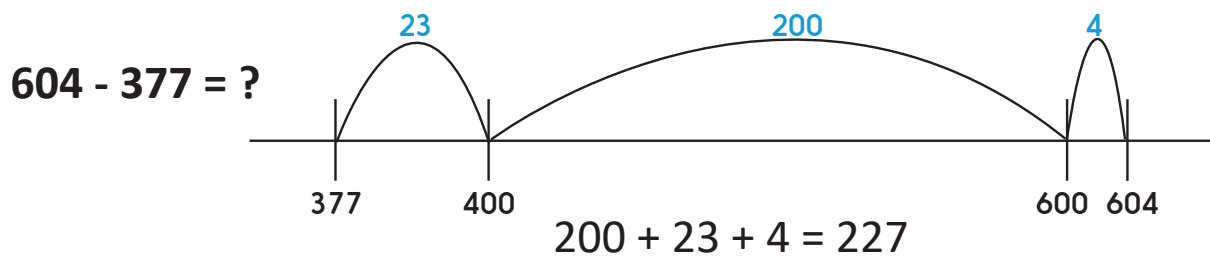
Sheet 1

Find and correct the mistakes in these subtractions. One subtraction is correct, which one?



$456 - 218 = ?$

$$\begin{array}{r} 400 \ 50 \ 6 \\ - 200 \ 10 \ 8 \\ \hline 200 \ 40 \ 2 \end{array} = 242$$



$745 - 561 = ?$

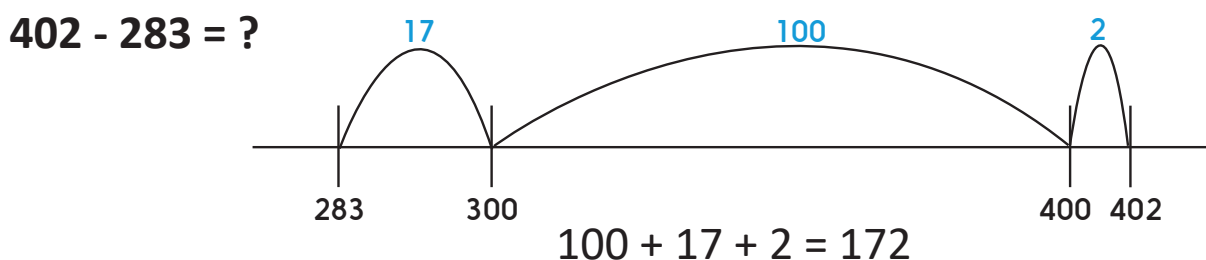
$$\begin{array}{r} 140 \\ 700 \ 40 \ 5 \\ - 500 \ 60 \ 1 \\ \hline 200 \ 80 \ 4 \end{array} = 284$$

Find the subtraction mistakes

Sheet 2

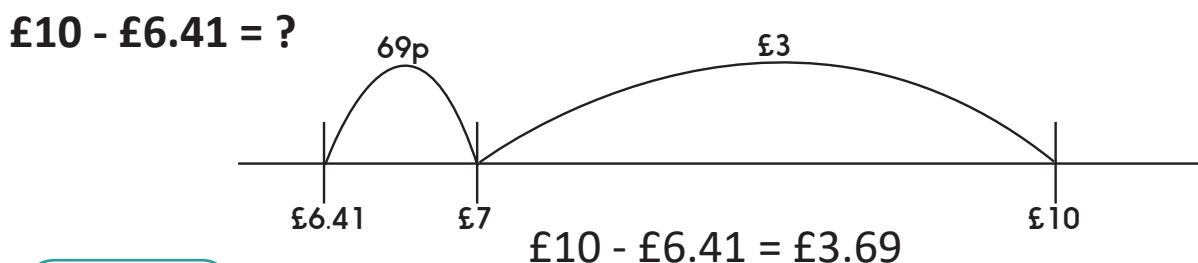
Find and correct the mistakes in these subtractions. One subtraction is correct, which one?

$$926 - 651 = ? \quad \begin{array}{r} 900 \ 20 \ 6 \\ - 600 \ 50 \ 1 \\ \hline 300 \ 30 \ 5 \end{array} = 335$$



$$862 - 455 = ? \quad \begin{array}{r} \\ - 400 \ 50 \ 5 \\ \hline 400 \ 10 \ 7 \end{array} = 417$$

$$759 - 374 = ? \quad \begin{array}{r} 600 \ 150 \\ 700 \ 50 \ 9 \\ - 300 \ 70 \ 4 \\ \hline 300 \ 80 \ 5 \end{array} = 385$$



Challenge

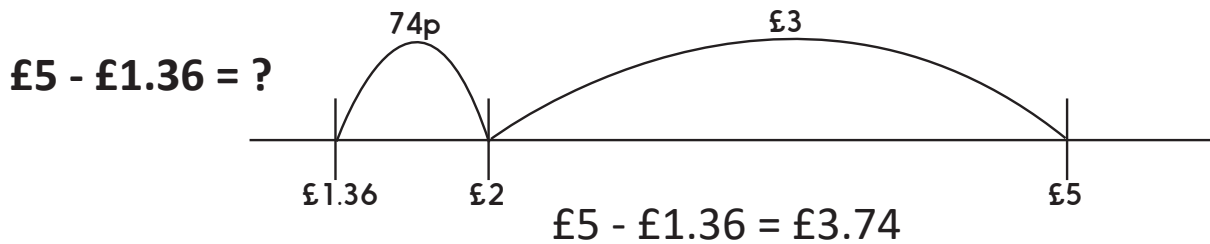
How many times can 158 be subtracted from 999 before you get an answer less than 100?

Think about how to do each subtraction – you may not use the same method for them all!

Find the subtraction mistakes

Sheet 3

Find and correct the mistakes in these subtractions. Are any correct? If so which ones?



$953 - 684 = ?$

$$\begin{array}{r} 800\ 40\ 13 \\ 900\ 50\ 3 \\ - 600\ 80\ 4 \\ \hline 200\ 40\ 9 \end{array} = 249$$

Should the student have chosen a different method, in your opinion? Explain.

$871 - 479 = ?$

$$\begin{array}{r} 11 \\ 800\ 70\ 1 \\ - 400\ 70\ 9 \\ \hline 400\ 0\ 2 \end{array} = 402$$

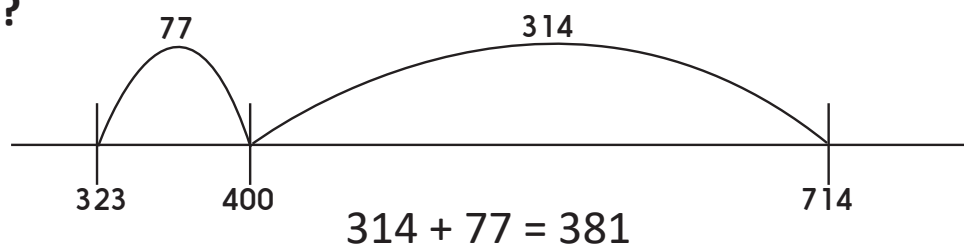
Would a mental method have been easier? Explain your ideas.

Find the subtraction mistakes

Sheet 3 continued

Find and correct the mistakes in these subtractions. Are any correct?
If so which ones?

$714 - 323 = ?$



$742 - 183 = ?$

$$\begin{array}{r} 600 \ 140 \\ 700 \ 40 \ 2 \\ - 100 \ 80 \ 3 \\ \hline 500 \ 60 \ 1 \end{array} = 561$$

$632 - 287 = ?$

$$\begin{array}{r} 500 \ 120 \ 12 \\ 600 \ 30 \ 2 \\ - 200 \ 80 \ 7 \\ \hline 300 \ 40 \ 5 \end{array} = 345$$

Challenge

How many times can 158 be subtracted from 999 before you get an answer less than 100?

Think about how to do each subtraction – you may not use the same method for them all!

Addition and subtraction

Answers

Day 1 Counting up Sheet 1

- | | |
|-------------------|-------------------|
| $712 - 655 = 57$ | $623 - 589 = 34$ |
| $535 - 478 = 57$ | $615 - 575 = 40$ |
| $722 - 684 = 38$ | $525 - 449 = 76$ |
| $616 - 535 = 81$ | $607 - 569 = 38$ |
| $925 - 795 = 130$ | $814 - 685 = 129$ |

Day 1 Counting up Sheet 2

- | | |
|-----------------------|------------------------|
| 1. $745 - 588 = 157$ | 2. $762 - 584 = 178$ |
| 3. $925 - 767 = 158$ | 4. $623 - 489 = 134$ |
| 5. $755 - 448 = 307$ | 6. $826 - 682 = 144$ |
| 7. $535 - 378 = 157$ | 8. $756 - 437 = 319$ |
| 9. $537 - 373 = 164$ | 10. $615 - 476 = 139$ |
| 11. $634 - 469 = 165$ | 12. $1002 - 735 = 267$ |

Challenge

$1000 - 989 = 11$ $1000 - 878 = 122$
 $1000 - 767 = 233$ $1000 - 656 = 344$
 $1000 - 565 = 455$
Watch out for the children using appropriate PV vocabulary in their explanations.

Day 2 Expanded subtraction Sheet 1

- | | |
|----------------------|-----------------------|
| 1. $265 - 134 = 131$ | 2. $598 - 372 = 226$ |
| 3. $682 - 456 = 226$ | 4. $364 - 149 = 215$ |
| 5. $472 - 253 = 219$ | 6. $745 - 561 = 184$ |
| 7. $874 - 246 = 628$ | 8. $855 - 278 = 577$ |
| 9. $952 - 685 = 267$ | 10. $344 - 175 = 169$ |
| 11. $535 - 488 = 47$ | 12. $746 - 467 = 279$ |

Day 3 Subtraction Sheet 1

- | | |
|-------------------|-------------------|
| $453 - 348 = 105$ | $958 - 482 = 476$ |
| $674 - 427 = 247$ | $607 - 572 = 35$ |
| $826 - 645 = 181$ | $803 - 641 = 162$ |
| $725 - 532 = 193$ | $520 - 315 = 205$ |
| $847 - 673 = 174$ | $630 - 527 = 103$ |

Day 3 Choosing a method for Subtraction Sheet 2

- | | |
|-------------------|-------------------|
| $501 - 374 = 127$ | $475 - 236 = 239$ |
| $585 - 127 = 458$ | $263 - 198 = 65$ |
| $864 - 681 = 183$ | $342 - 175 = 167$ |
| $702 - 457 = 245$ | $607 - 239 = 368$ |

Day 3 Choosing a method for Subtraction Sheet 3

- | | |
|-------------------|---------------------|
| $394 - 167 = 227$ | $952 - 590 = 362$ |
| $610 - 481 = 129$ | $846 - 789 = 57$ |
| $655 - 368 = 287$ | $1002 - 748 = 254$ |
| $803 - 472 = 331$ | $2013 - 838 = 1175$ |

Challenge

The two 'outside' digits will always add together to make the middle digit.

Challenge

The two 'outside' digits will always add together to make the middle digit.

Addition and subtraction

Answers

Day 4 Find the subtraction mistakes Sheet 1

- $£5 - £3.65 = £1.45$ Wrong. Frog's jump is 35p not 45p from £3.65 to £4. The correct answer is £1.35.
 $456 - 218 = 242$ Wrong. The child needed to move a 10 to give to the 6 ones before trying to subtract 8. The correct answer is 238.
 $604 - 377 = 227$ Correct
 $502 - 186 = 334$ Wrong. $300 + 14 + 2 = 316$ not 334.
 $745 - 561 = 284$ Wrong. Forgot to subtract the 100 from the 700 in the 100s column that was moved to tens column. The correct answer is 184.

Day 4 Find the subtraction mistakes Sheet 2

- $926 - 651 = 335$ Wrong. Should have moved a 100 to add to the 20 before trying to subtract 50. The correct answer is 275.
 $402 - 283 = 172$ Wrong. Place value error. $100 + 17 + 2$ is 119 not 172.
 $862 - 455 = 417$ Wrong. Forgot to subtract the 10 from 60 that was moved to the ones column. The correct answer is 407.
 $759 - 374 = 385$ Correct
 $£10 - £6.41 = £3.69$ Wrong. Frog jumped 59p to £7 not 69p. The correct answer is £3.59.

Challenge

158 can be subtracted from 999 five times before you get an answer less than 100.

Day 4 Find the subtraction mistakes Sheet 3

- $£5 - £1.36 = £3.74$ Wrong. Frog jumped 64p to £2 not 74p. The correct answer is £3.64.
 $953 - 684 = 249$ Wrong. Did not add the 100 to the 10s column to subtract 80 from 140. The correct answer is 269.
 $871 - 479 = 402$ Wrong. Forgot to subtract the 10 from the tens column that was added to the 1s so missed that 100 needed to be moved to the 10s column. The correct answer is 392.
 $714 - 323 = 381$ Wrong. $314 + 77 = 391$ not 381.
 $742 - 183 = 561$ Wrong. Missed that 10 needed to be moved from the 10s column to subtract 3 from 12. The correct answer is 559.
 $632 - 287 = 345$ Correct

Challenge

158 can be subtracted from 999 five times before you get an answer less than 100.