

Yr 4 Addition and Subtraction Unit 1 (4177)

Additional teacher instructions for practice sheets

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

Day 1 Adding two 2-digit numbers Sheet 1

Working towards ARE / Working at ARE

Day 1 2-digit + 2-digit grid with missing numbers Sheet 2

Greater Depth

Day 2 Adding 3-digit numbers using compact addition Sheet 1

Working towards ARE / Working at ARE

Day 2 Adding 3-digit numbers using compact addition Sheet 2

Greater Depth

Day 3 Addition word problems with three 3-digit numbers Sheet 1

Working towards ARE

Day 3 Addition word problems with three 3-digit numbers Sheet 2

Working at ARE / Greater Depth

Adding two 2-digit numbers

Sheet 1

| | | |
|----|----|----|
| + | 25 | 40 |
| 20 | | |
| 32 | | |

| | | |
|----|----|----|
| + | 35 | 45 |
| 22 | | |
| 53 | | |

| | | |
|----|----|----|
| + | 28 | 58 |
| 23 | | |
| 32 | | |

| | | |
|----|----|----|
| + | 75 | 46 |
| 27 | | |
| 31 | | |

| | | |
|----|----|----|
| + | 70 | 85 |
| 36 | | |
| 24 | | |

| | | |
|----|----|----|
| + | 89 | 96 |
| 27 | | |
| 39 | | |

$134 + 19 =$

$34 + 562 =$

$244 + 29 =$

$326 + 51 =$

$423 + 76 =$

$158 + 99 =$

$384 + 104 =$

$631 + 49 =$

Challenge

Find a quick way to complete the chain addition below!

$204 + 21 + 31 + 41 + 51 + 61 =$

Explain how you did it!

2-digit + 2-digit grid with missing numbers

Sheet 2

| | | |
|----|-----|-----|
| + | ? | 80 |
| 25 | 78 | 105 |
| ? | 115 | 142 |

$$\boxed{} - 19 = 115$$

$$134 + 562 = \boxed{}$$

$$\boxed{} - 26 = 373$$

$$326 + 74 = \boxed{}$$

$$423 + 87 = \boxed{}$$

$$458 + 99 = \boxed{}$$

$$384 + 35 = \boxed{}$$

$$\boxed{} - 49 = 248$$

Challenge

Find a quick way to complete the chain addition below!

$$204 + 99 + 89 + 79 + 69 + 59 =$$

Explain how you did it!

Adding 3-digit numbers using compact addition

Sheet 1

A

$$\begin{array}{r} 243 \\ + 645 \\ \hline \end{array}$$

$$\begin{array}{r} 831 \\ + 154 \\ \hline \end{array}$$

$$\begin{array}{r} 755 \\ + 321 \\ \hline \end{array}$$

$$\begin{array}{r} 264 \\ + 535 \\ \hline \end{array}$$

$$\begin{array}{r} 426 \\ + 453 \\ \hline \end{array}$$

B

$$\begin{array}{r} 246 \\ + 645 \\ \hline \end{array}$$

$$\begin{array}{r} 838 \\ + 154 \\ \hline \end{array}$$

$$\begin{array}{r} 791 \\ + 325 \\ \hline \end{array}$$

$$\begin{array}{r} 243 \\ + 585 \\ \hline \end{array}$$

$$\begin{array}{r} 426 \\ + 456 \\ \hline \end{array}$$

C

$$\begin{array}{r} 268 \\ + 645 \\ \hline \end{array}$$

$$\begin{array}{r} 837 \\ + 174 \\ \hline \end{array}$$

$$\begin{array}{r} 755 \\ + 386 \\ \hline \end{array}$$

$$\begin{array}{r} 267 \\ + 555 \\ \hline \end{array}$$

$$\begin{array}{r} 466 \\ + 456 \\ \hline \end{array}$$

D

$$\begin{array}{r} 243 \\ 645 \\ + 111 \\ \hline \end{array}$$

$$\begin{array}{r} 631 \\ 154 \\ + 213 \\ \hline \end{array}$$

$$\begin{array}{r} 451 \\ 126 \\ + 321 \\ \hline \end{array}$$

$$\begin{array}{r} 244 \\ 729 \\ + 133 \\ \hline \end{array}$$

$$\begin{array}{r} 327 \\ 115 \\ + 453 \\ \hline \end{array}$$

Challenge

Can you find a pair of 3-digit numbers which add to give exactly 1000? All six digits must be different!

Adding 3-digit numbers using compact addition

Sheet 2

- Write a 3-digit number obeying this rule:
 - The digits must go up in twos (e.g. 468 or 357).
- Write the number with the same digits in reverse order.
- Add the two numbers using column addition.
- Circle the answer.
- Repeat this four times.
- What do you notice about the pattern in the answers?
- Predict what happens if you add numbers which go up in threes (e.g. 147 and 741).
- Try three like this.
- How about if they go up in 4s....?

3 5 7
+ 7 5 3

Challenge

What happens with 4-digit numbers, e.g. $2468 + 8642 = ?$

Addition word problems with three 3-digit numbers

Sheet 1

Choose two numbers. Add them.
Do this four times.

243

315

482

537

303

Use written addition to solve these word problems:

- 1) Zoe pays £125 for her bike. Amit pays £136 for his. How much do they pay altogether?
- 2) Mo is 130 cm tall, Ryan is 140 cm tall and Ella is 125 cm tall. How many centimetres tall are they altogether?
- 3) Sunil, Sonny and Sally have each got 125 Pokémon stickers. How many do they have altogether?

Addition word problems with three 3-digit numbers

Sheet 2

Choose two numbers. Add them.
Do this four times.

247

375

482

539

363

Use compact written addition to solve these word problems:

1) Mo is 130 cm tall, Ryan is 132 cm tall and Ella is 127 cm tall. How many centimetres long would they be if they lay end to end on the floor?

2) Zoe's bike cost £134, Tom's cost £129 and Oti's cost £135. How much are all three bikes?

3) Luke, Mia and Chen are playing a computer game. Luke scores 342 points, Mia scores 451 points and Chen scores 124 points. How many points do they score altogether?

4) Anna, Dev and Sam are playing pinball. Anna scores 630 points, Dev scores 723 points and Sam scores 215 points. How many points do they score altogether?

5) Farmer Fred has 223 sheep, 197 cows and 478 chickens. How many animals does he have altogether?

6) Farmer Jess has 651 sheep, 574 cows and 842 chickens. How many animals does she have altogether?

Challenge

Make up a word problem where you have to add 473 and 385.

Addition and Subtraction

Answers

Day 1 Adding two 2-digit numbers Sheet 1

| | | |
|----|----|----|
| + | 25 | 40 |
| 20 | 45 | 60 |
| 32 | 57 | 72 |

| | | |
|----|----|----|
| + | 35 | 45 |
| 22 | 57 | 67 |
| 53 | 88 | 98 |

| | | |
|----|----|----|
| + | 28 | 58 |
| 23 | 51 | 81 |
| 32 | 60 | 90 |

| | | |
|----|-----|----|
| + | 75 | 46 |
| 27 | 102 | 73 |
| 31 | 106 | 77 |

| | | |
|----|-----|-----|
| + | 70 | 85 |
| 36 | 106 | 121 |
| 24 | 94 | 109 |

| | | |
|----|-----|-----|
| + | 89 | 96 |
| 27 | 116 | 123 |
| 39 | 128 | 135 |

$134 + 19 = 153$

$244 + 29 = 273$

$423 + 76 = 499$

$384 + 104 = 488$

$34 + 562 = 596$

$326 + 51 = 377$

$158 + 99 = 257$

$631 + 49 = 680$

Challenge

Find a quick way to complete the chain addition below!

$204 + 21 + 31 + 41 + 51 + 61 = 409$

Round down to nearest 10 and then add 5.

Day 1 2-digit + 2-digit grid with missing numbers Sheet 2

| | | |
|----|-----|-----|
| + | 53 | 80 |
| 25 | 78 | 105 |
| 62 | 115 | 142 |

$134 - 19 = 115$

$399 - 26 = 373$

$423 + 87 = 510$

$384 + 35 = 419$

$134 + 562 = 696$

$326 + 74 = 400$

$458 + 99 = 557$

$297 - 49 = 248$

Challenge

Find a quick way to complete the chain addition below!

$204 + 99 + 89 + 79 + 69 + 59 = 599$

Round up to nearest 10 and then subtract 5.

Addition and Subtraction

Answers

Day 2 Adding 3-digit numbers using compact addition Sheet 1

| A | B | C | D |
|--|--|--|---|
| $\begin{array}{r} 243 \\ + 645 \\ \hline 888 \end{array}$ | $\begin{array}{r} 246 \\ + 645 \\ \hline 891 \end{array}$ | $\begin{array}{r} 268 \\ + 645 \\ \hline 913 \end{array}$ | $\begin{array}{r} 243 \\ 645 \\ + 111 \\ \hline 999 \end{array}$ |
| $\begin{array}{r} 831 \\ + 154 \\ \hline 985 \end{array}$ | $\begin{array}{r} 838 \\ + 154 \\ \hline 992 \end{array}$ | $\begin{array}{r} 837 \\ + 174 \\ \hline 1011 \end{array}$ | $\begin{array}{r} 631 \\ 154 \\ + 213 \\ \hline 998 \end{array}$ |
| $\begin{array}{r} 755 \\ + 321 \\ \hline 1076 \end{array}$ | $\begin{array}{r} 791 \\ + 325 \\ \hline 1116 \end{array}$ | $\begin{array}{r} 755 \\ + 386 \\ \hline 1141 \end{array}$ | $\begin{array}{r} 451 \\ 126 \\ + 321 \\ \hline 898 \end{array}$ |
| $\begin{array}{r} 264 \\ + 535 \\ \hline 799 \end{array}$ | $\begin{array}{r} 243 \\ + 585 \\ \hline 828 \end{array}$ | $\begin{array}{r} 267 \\ + 555 \\ \hline 822 \end{array}$ | $\begin{array}{r} 244 \\ 729 \\ + 133 \\ \hline 1106 \end{array}$ |
| $\begin{array}{r} 426 \\ + 453 \\ \hline 879 \end{array}$ | $\begin{array}{r} 426 \\ + 456 \\ \hline 882 \end{array}$ | $\begin{array}{r} 466 \\ + 456 \\ \hline 922 \end{array}$ | $\begin{array}{r} 327 \\ 115 \\ + 453 \\ \hline 895 \end{array}$ |

Challenge

Can you find a pair of 3-digit numbers which add to give exactly 1000? All six digits must be different!

To answer this, you can use any 3-digit number with different digits, and then subtract it from 1000.

Day 2 Adding 3-digit numbers using compact addition Sheet 2

All the columns will add up to the same number.

| | | | | |
|--|--|---|--|---|
| $\begin{array}{r} 357 \\ + 753 \\ \hline 1110 \end{array}$ | $\begin{array}{r} 468 \\ + 864 \\ \hline 1332 \end{array}$ | $\begin{array}{r} 246 \\ + 642 \\ \hline 888 \end{array}$ | $\begin{array}{r} 579 \\ + 975 \\ \hline 1554 \end{array}$ | $\begin{array}{r} 135 \\ + 531 \\ \hline 666 \end{array}$ |
|--|--|---|--|---|

Challenge

What happens with 4-digit numbers, e.g. $2468 + 8642 = ?$

The same thing happens. All the columns add up to the same number.

Addition and Subtraction

Answers

Day 3 Addition word problems with three 3-digit numbers Sheet 1

243 +

$243 + 315 = 558$

$243 + 482 = 725$

$243 + 537 = 780$

$243 + 303 = 546$

315 +

$315 + 243 = 558$

$315 + 482 = 797$

$315 + 537 = 852$

$315 + 303 = 618$

482 +

$482 + 243 = 725$

$482 + 315 = 797$

$482 + 537 = 1019$

$482 + 303 = 785$

537 +

$537 + 243 = 780$

$537 + 315 = 852$

$537 + 482 = 1019$

$537 + 303 = 840$

303 +

$303 + 243 = 546$

$303 + 315 = 618$

$303 + 482 = 785$

$303 + 537 = 840$

$$\begin{array}{r} 1 \\ 125 \\ + 136 \\ \hline \text{£}261 \end{array}$$

$$\begin{array}{r} 2 \\ 130 \\ + 140 \\ + 125 \\ \hline 395 \text{ cm} \end{array}$$

$$\begin{array}{r} 3 \\ 125 \\ + 125 \\ \hline 375 \end{array}$$

Day 3 Addition word problems with three 3-digit numbers Sheet 2

247 +

$247 + 375 = 622$

$247 + 482 = 729$

$247 + 539 = 786$

$247 + 363 = 610$

375 +

$375 + 247 = 622$

$375 + 482 = 857$

$375 + 539 = 914$

$375 + 363 = 738$

482 +

$482 + 247 = 729$

$482 + 375 = 857$

$482 + 539 = 1021$

$482 + 363 = 845$

539 +

$539 + 247 = 786$

$539 + 375 = 914$

$539 + 482 = 1021$

$539 + 363 = 902$

363 +

$363 + 247 = 610$

$363 + 375 = 738$

$363 + 482 = 845$

$363 + 539 = 902$

$$\begin{array}{r} 1 \\ 130 \\ + 132 \\ + 127 \\ \hline 389 \text{ cm} \end{array}$$

$$\begin{array}{r} 2 \\ 134 \\ + 129 \\ + 135 \\ \hline \text{£}398 \end{array}$$

$$\begin{array}{r} 3 \\ 342 \\ + 451 \\ + 124 \\ \hline 917 \end{array}$$

$$\begin{array}{r} 4 \\ 630 \\ + 723 \\ + 215 \\ \hline 1568 \end{array}$$

$$\begin{array}{r} 5 \\ 223 \\ + 197 \\ + 478 \\ \hline 898 \end{array}$$

$$\begin{array}{r} 6 \\ 651 \\ + 574 \\ + 842 \\ \hline 2067 \end{array}$$