## Addition and

## Subtraction Workbook



## Home Learning Year 3 Maths Workbook Pack

## Year 3 Programme of Study - Addition and Subtraction

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| A three digit number and ones | Adding ones to a 3 digit number worksheet <br> Subtracting ones from a 3 digit number worksheet | 4 <br> 5 |  |
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| A three digit number and hundreds. | Adding hundreds to a 3 digit number worksheet <br> Subtracting hundreds from a 3 digit number worksheet | $8$ $9$ |  |
| Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. | Adding 3 and 2 digit numbers in a column with no carrying answers <br> Adding 3 and 2 digit numbers in a column with carrying answers <br> Subtracting 2 digit numbers from 3 digit numbers in a column with no exchanging <br> Subtracting 2 digit numbers from 3 digit numbers in a column with exchanging worksheet <br> Adding two 3 digit numbers in a column with no carrying answers <br> Adding two 3 digit numbers in a column with carrying answers worksheet <br> Subtracting 3 digit numbers from 3 digit numbers in a column with no exchanging worksheet <br> Subtracting 3 digit numbers from 3 digit numbers in a column with exchanging worksheet | 10 <br> 11 <br> 12 <br> 13 <br> 14 <br> 15 <br> 16 <br> 17 |  |


| Statutory Requirements | Worksheet | Page Number | Notes |
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|  | Inverse checking 2 digit by <br> 2 digit mixed with carrying <br> and exchanging choice of <br> method worksheet <br> Inverse checking 3 digit by <br> 2 digit mixed with carrying <br> and exchanging choice of <br> method worksheet | 18 | 19 |
| Estimate the answer to a <br> calculation and use inverse <br> operations to check answers. | Inverse checking 3 digit by 3 <br> digit mixed with carrying and <br> exchanging worksheet | 20 | 21 |
| Inverse create addition and <br> subtraction calculations from a <br> set of 3 numbers worksheet | $22-23$ | $24-25$ |  |
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## Adding Ones to a 3-Digit Number

Calculate the answers to the following:

1. $136+3=$ $\qquad$ 13. $529+4=$ $\qquad$
2. $212+4=$ $\qquad$ 14. $645+9=$ $\qquad$
3. $381+6=$ $\qquad$ 15. $713+8=$ $\qquad$
4. $494+5=$ $\qquad$ 16. $995+6=$ $\qquad$
5. $533+4=$ $\qquad$ 17. $165+7=$ $\qquad$
6. $620+7=$ $\qquad$ 18. $252+6=$ $\qquad$
7. $725+4=$ $\qquad$ 19. $395+9=$ $\qquad$
8. $952+7=$
9. $478+1=$ $\qquad$
10. $165+8=$ $\qquad$ 21. $546+7=$ $\qquad$
11. $224+7=$ $\qquad$ 22. $659+3=$ $\qquad$
12. $388+6=$ $\qquad$ 23. $765+3=$ $\qquad$
13. $478+5=$ $\qquad$ 24. $971+8=$ $\qquad$

## Challenge

Explain how you would use $7+8=15$ to calculate $537+8$.

## Subtracting Ones from a 3-Digit Number

Calculate the answers to the following:

1. $166-3=$ $\qquad$ 13. $571-5=$ $\qquad$
2. $295-4=$ $\qquad$ 14. $678-9=$ $\qquad$
3. $307-5=$ $\qquad$ 15. $722-6=$ $\qquad$
4. $489-7=$ $\qquad$ 16. $982-4=$ $\qquad$
5. $578-4=$ $\qquad$ 17. $122-6=$ $\qquad$
6. $636-2=$ $\qquad$ 18. 279 = 271
7. $794-3=$ $\qquad$ 19. $\qquad$ + = 329
8. $959-8=$ $\qquad$ 20. $459-3=$ $\qquad$
9. $145-8=$ $\qquad$ 21. $566+$ $=557$
10. $213-7=$ $\qquad$ 22. $659-4=$ $\qquad$
11. $383-5=$ $\qquad$ 23. $779-5=$ $\qquad$
12. $491-4=$ $\qquad$ 24. $\qquad$ $+8=944$

## Challenge

Explain how you would use $14-8=6$ to calculate $384-8$.

## Adding Tens to a 3-Digit Number

Calculate the answers to the following:

1. $153+30=$ $\qquad$ 13. $564+80=$ $\qquad$
2. $272+20=$ $\qquad$ 14. $675+90=$ $\qquad$
3. $301+60=$ $\qquad$ 15. $761+70=$ $\qquad$
4. $413+70=$ $\qquad$ 16. $964+60=$ $\qquad$
5. $523+40=$ $\qquad$ 17. $102+$ $=172$
6. $630+20=$ $\qquad$ 18. $282+60=$ $\qquad$
7. $737+50=$ $\qquad$ 19. $\qquad$ $+30=424$
8. $939+60=$ $\qquad$ 20. $488+40=$ $\qquad$
9. $142+80=$ $\qquad$ 21. $537+90=$ $\qquad$
10. $267+70=$ $\qquad$ 22. $\qquad$ $+30=686$
11. $398+60=$ $\qquad$ 23. $770+$ $=850$
12. $451+50=$ $\qquad$ 24. $961+70=$ $\qquad$

## Challenge

Explain how you would use $7+8=15$ to calculate $537+8$.

## Subtracting Tens from a 3-Digit Number

Calculate the answers to the following:
$\qquad$

1. $178-30=$
2. $537-50=$ $\qquad$
3. $282-40=$ $\qquad$ 14. $612-70=$ $\qquad$
4. $377-50=$ $\qquad$ 15. $727-60=$ $\qquad$
5. $495-70=$ $\qquad$ 16. $933-90=$ $\qquad$
6. $581-40=$ $\qquad$
7. 134 - $\qquad$ $=74$
8. $625-20=$ $\qquad$ 18. $213-80=$ $\qquad$
9. $767-50=$ $\qquad$ 19. $\qquad$ $-70=276$
10. $992-80=$ $\qquad$ 20. $403-30=$ $\qquad$
11. $131-80=$ $\qquad$ 21. $\qquad$ $-90=486$
12. $224-60=$ $\qquad$ 22. $619-20=$ $\qquad$
13. $357-90=$ $\qquad$ 23. 717 $=647$
14. $413-30=$ $\qquad$ 24. $941-50=$ $\qquad$

## Challenge

Explain what other calculations you might use 13-8=5.

## Adding Hundreds to a 3-Digit Number

Calculate the answers to the following:

1. $163+500=$ $\qquad$ 13. $549+800=$ $\qquad$
2. $345+600=$ $\qquad$ 14. $672+700=$ $\qquad$
3. $582+400=$ $\qquad$ 15. $701+900=$ $\qquad$
4. $273+300=$ $\qquad$ 16. $927+600=$ $\qquad$
5. $561+200=$ $\qquad$ 17. $116+700=$ $\qquad$
6. $170+700=$ $\qquad$ 18. $352+$ $=1252$
7. $207+500=$ $\qquad$ 19. $\qquad$ $+400=859$
8. $719+100=$ $\qquad$ 20. $824+300=$ $\qquad$
9. $372+800=$ $\qquad$ 21. $562+900=$ $\qquad$
10. $460+700=$ $\qquad$ 22. $\qquad$ $+300=916$
11. $508+900=$ $\qquad$ 23. $752+$ $\qquad$ $=1552$
12. $721+500=$ $\qquad$ 24. $911+700=$ $\qquad$

## Challenge

Explain how you would use $9+4=13$ to calculate $931+400$.

## Subtracting Hundreds from a Three Digit Number

Calculate the answers to the following:

1. $353-200=$ $\qquad$ 9. $268-200=$ $\qquad$
2. $416-400=$ $\qquad$ 10. $416-100=$ $\qquad$
3. $531-300=$ $\qquad$ 11. $547-300=$ $\qquad$
4. $789-500=$ $\qquad$ 12. $346-100=$ $\qquad$
5. $564-300=$ $\qquad$ 13. $564-400=$ $\qquad$
6. $820-600=$ $\qquad$ 14. $893-600=$ $\qquad$
7. $707-500=$ $\qquad$ 15. $507-500=$ $\qquad$
8. $919-700=$ $\qquad$ 16. $919-400=$ $\qquad$

## Challenge

Take any three digit number. You can subtract 100, 200, 300 or 400 once each, but you must not go below 0 .
e.g. $672-100=572,572-300=272,272-200=72$.

100,300 and 200 were subtracted to get to 72 .

Can you always get to a number between or equal to 100 and 1 ?

If you use as many sutractions as possible are there any patterns?

## Adding 3-Digit and 2-Digit Numbers - No Carrying

Calculate the answers to the following:


672
16
$+\quad 1$


281
$\begin{array}{r}17 \\ +\quad \\ \hline\end{array}$

| 552 |
| ---: |
| $+\quad 36$ |



327
$\begin{array}{r}21 \\ +\quad \\ \hline\end{array}$
$\begin{array}{r}51 \\ +\quad \\ \hline\end{array}$
$\qquad$


$$
\begin{array}{r}
474 \\
+\quad 15 \\
\hline
\end{array}
$$



371
$+\quad 22$

Calculate the following calculations:


## Adding 3-Digit and 2-Digit Numbers - With Carrying

Calculate the answers to the following:


615
$+38$
$\qquad$

581

| 67 |
| :--- |
| $+\quad 6$ |


| 16 |
| :--- |
| $+\quad$ |

$\begin{array}{r}85 \\ +\quad \\ \hline\end{array}$
672
$+\quad 42$
$\qquad$


$$
670
$$



387
$\begin{array}{r}51 \\ +\quad \\ \hline\end{array}$
$\qquad$

$\qquad$
$\begin{array}{r}476 \\ +\quad 45 \\ \hline\end{array}$
158
379
$\begin{array}{r}74 \\ +\quad \\ \hline\end{array}$
26
$+\quad$
$\qquad$


Calculate the following calculations:


## Subtracting 2-Digit Numbers from 3-Digit Numbers No Exchanging

Calculate the answers to the following:

| 479 |
| ---: |
| $-\quad 18$ |



652
569


| $-\quad 67$ |
| :--- |

$\qquad$
$\qquad$
$\qquad$
$\qquad$

$\begin{array}{r}677 \\ -\quad 72 \\ \hline\end{array}$
697
387


51

Calculate the following calculations:
$\begin{array}{r}3 \\ -\quad 7 \\ \hline 302 \\ \hline\end{array}$


Subtracting 2-Digit Numbers from 3-Digit Numbers With Exchanging
Calculate the answers to the following:
$\qquad$

| 620 |
| ---: |
| $-\quad 16$ |

364
415
528

| $+\quad 46$ |
| :--- |

$\begin{array}{r}-\quad 33 \\ \hline\end{array}$

| $-\quad 67$ |
| :--- |

$\qquad$
$\qquad$
126
673

916

| $-\quad 31$ |
| :--- |

$\begin{array}{r}-\quad 82 \\ \hline\end{array}$
53

Calculate the following calculations:
$\begin{array}{r}22 \\ -\quad 3 \\ \hline 220 \\ \hline\end{array}$


## Adding Two 3-Digit Numbers - No Carrying

Calculate the answers to the following:

| 273 |
| ---: |
| +514 |


| 451 |
| ---: |
| +225 |


| 304 |
| ---: |
| +463 |

$\qquad$


153
805
572
531
$\begin{array}{r}716 \\ \hline\end{array}$
$\begin{array}{r}102 \\ + \\ \hline\end{array}$
$\begin{array}{r}213 \\ \hline\end{array}$
$\begin{array}{r}267 \\ + \\ \hline\end{array}$
$\qquad$

$\qquad$

| 202 |
| ---: |
| +236 |


| 370 |
| ---: |
| +116 |

$$
622
$$

312
$\begin{array}{r}675 \\ +37 \\ \hline\end{array}$
251
+

| 476 |
| ---: |
| +403 |$\quad$| 155 |
| ---: |
| +234 |$\quad$| 371 |
| ---: |
| +628 |

Calculate the following calculations:

$$
\begin{array}{r}
432 \\
+\quad 3 \\
\hline 437 \\
\hline
\end{array}
$$



## Adding Two 3-Digit Numbers - With Carrying

Calculate the answers to the following:

| $\begin{array}{r} 323 \\ +\quad 518 \\ \hline \end{array}$ | $\begin{array}{r} 607 \\ +228 \\ \hline \end{array}$ | $\begin{array}{r} 507 \\ +463 \\ \hline \end{array}$ | $\begin{array}{r} 319 \\ +\quad 142 \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| 257 | 505 | 672 | 591 |
| +706 | +109 | +243 | + 367 |
|  |  |  |  |
|  |  |  |  |
| 572 | 760 | 822 | 912 |
| +336 | +615 | + 345 | + 461 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| 476 | 655 | 379 |  |
| + 485 | 738 +7 | $\begin{array}{r}348 \\ +64 \\ \hline\end{array}$ |  |

Calculate the following calculations:


## Subtracting Two 3-Digit Numbers - No Exchanging

Calculate the answers to the following:

| 569 |
| ---: |
| $-\quad 315$ |


| 346 |
| ---: |
| $-\quad 125$ |


| 774 |
| ---: |
| $-\quad 453$ |

652
$\begin{array}{r}-420 \\ \hline\end{array}$
$\qquad$



Calculate the following calculations:

$$
\begin{array}{r}
34 \\
-\quad 24 \\
\hline 33 \\
\hline
\end{array}
$$



## Subtracting Two 3-Digit Numbers - With Exchanging

Calculate the answers to the following:

| 451 |
| ---: |
| $-\quad 218$ |


| 840 |
| ---: |
| $-\quad 525$ |


| 472 |
| ---: |
| -238 |

$\qquad$

| $\begin{array}{r} 690 \\ -526 \end{array}$ | $\begin{array}{r} 726 \\ +419 \end{array}$ | $\begin{array}{r} 427 \\ -\quad 233 \end{array}$ | $\begin{array}{r} 519 \\ -450 \end{array}$ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| 353 | 627 | 622 | 951 |
| 136 | - 471 | - 394 | - 652 |

Calculate the following calculations:


## Checking 2 by 2-Digit Mixed Calculations - With Carrying and Exchanging

Calculate the answer to the following calculations and check by using the inverse (addition or subtraction). Choose the best method for you - column method, number line, near doubles etc.

| $76+45=$ | $97-38=$ |
| :---: | :---: |
| $72-48=$ | $64+38=$ |
| $82-65=$ | $49+46=$ |
| $93+59=$ | $68-29=$ |

## Challenge

Explain how you might check your answer to this calculation: $47+54+35=$

## Checking 3 by 2-Digit Mixed Calculations - With Carrying and Exchanging

Calculate the answer to the following calculations and check by using the inverse (addition or subtraction). Choose the best method for you - column method, number line, near doubles etc.

| $419+79=$ | $608-57=$ |
| :---: | :---: |
| $437-49=$ | $372+88=$ |
| $673-46=$ | $514+49=$ |
| $586+97=$ | $970-74=$ |
|  |  |

## Challenge

Use 2 different methods to calculate and check this calculation. 365-87 = Can you explain which method you find better?

## Checking 3 by 3-Digit Mixed Calculations - With Carrying and Exchanging

Calculate the answer to the following calculations and check by using the inverse (addition or subtraction). Choose the best method for you - column method, number line, near doubles etc.

| $245+356=$ | $562-347=$ |
| :---: | :---: |
| $703-459=$ | $509+389=$ |
| $825-286=$ | $672+319=$ |
| $592+209=$ | $913-387=$ |

## Challenge

Explain how you might use the inverse to check this calculation. $541+518+265=$

## Checking 3 by 3-Digit Mixed Calculations - With Carrying and Exchanging

Calculate the answer to the following calculations and check by using the inverse (addition or subtraction). Choose the best method for you - column method, number line, near doubles etc.

| $34 \quad 23$ 57 | 1659 | 9245137 |
| :---: | :---: | :---: |
| $\qquad$ | $\qquad$ | $\qquad$ |
| 87240153 | 393240153 | 616240153 |
| $\qquad$ | $\qquad$ | $\qquad$ |

Create two addition and two subtraction calculations from each set of three numbers, writing the full calculations in the given box.

| 26 | 97 | 123 | 86 | 134 | 48 | 364213151 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |
| 652 | 589 | 63 | 572 | 801 | 229 | 371912 |
|  |  |  | 1283 |  |  |  |

## Estimated Answers

To answer the following questions decide which multiple of 10 each number is closest to and then add or subtract the numbers. Trying to answer quickly will help you to practise estimating rather than working the answer out.

## Example

1. $32+59=$

My estimate: $30+60=90$

## Estimating Addition:

1. $32+59=$

My estimate:

3. $51+53=$

My estimate:

2. $23+28=$

My estimate:

5. $89+27=$

7. $132+19=$

My estimate:

9. $127+152=$

8. $88+109=$

My estimate:

6. $59+92=$

My estimate:

10. $353+281=$

My estimate:


## Estimating Subtraction:

1. $58-32=$
My estimate: $\square$

2. $79-22=$
My estimate:

3. $104-51=$

My estimate: $\square$

4. $121-33=$

My estimate: $\square$

6. $229-92=$

My estimate: $\square$ $-\square$

7. $132-17=$

My estimate: $\square$

8. $288-109=$ My estimate: $\square$


9. $257-152=$

My estimate: $\square$


10. $353-281=$ $-\square$ y estimate: $\square$ .


## Exemplary Calculation Procedure

## Estimating, Answering and Checking with Inverse Operation

1. Begin by estimating your answer using the nearest multiple of 10 for each number.
2. Perform the exact calculation using your chosen method.
3. Check that your answer is close to your estimate.
4. Check your answer is correct by working backwards using the inverse operation.

## Addition Calculations:

Example:

| Number <br> Sentence | My Estimate | Calculation | Answer close <br> to estimate | Check <br> with Inverse | Correct? |
| :--- | :--- | ---: | :--- | :--- | :--- |
| e.g. $57+39$ | $60+40=100$ | 5 | 7 | $96 / 100=$ Yes! | 8 |


5. $218+133$

|  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |


|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Subtraction Calculations:
Example:

| Number Sentence | My Estimate | Calculation | Answer close to estimate | Check with Inverse | Correct? |
| :---: | :---: | :---: | :---: | :---: | :---: |
| e.g. 84-29 | $80-30=50$ | 7 | 50/55 = Yes! | 55 | Yes! |
|  |  | 84 |  | + 29 |  |
|  |  | - 29 |  | 8,4 |  |
|  |  | 5 5 |  |  |  |



## Addition and Subtraction Word Problems

Solve the following problems:

1. There are 167 books in one classroom and 392 books in the other. How many books are there altogether in both classrooms?
2. Jay has a collection of 263 football cards. His brother has 189. How many more football cards does Jay have?
3. A family drive 208 miles from London to Manchester and then 213 miles to Glasgow. How far did they travel altogether?
4. A cricket team score 456 in the first innings and 249 in the second innings.

How many runs did they score altogether?
5. Jenny has $£ 6.67$. She spends $£ 2.85$ on a present for her brother.

How much money does she have altogether.
6. Abi collects stamps. She has 351 in a box and 456 in a book.

How many does she have altogether?
7. A lorry driver has a 561 mile journey. He stops for a break after 314 miles.

How much further has he to travel?
8. A pack of Christmas cards costs $£ 5.49$.

How much change would there be from $£ 10.00$ ?
9. A packet of lentils weighs 450 g and a packet of kidney beans weighs 385 g .

How much do they both weigh altogether?
10. A shopkeeper has 367 bottles of lemonade.

He orders 480 more. How many bottles of lemonade will he have now?

## Challenge

Two children have 720 marbles between them.
Jay has 126 more than Abi.
How many does Abi have?

## Addition and Subtraction Using Worded Calculations

Solve the following problems:

1. What number is five more than two hundred and fifty nine?
2. What number is 451 subtract 246 ?
3. How much larger is 817 than 662 ?
4. What number is three hundred and six more than four hundred and nineteen?
5. What number is the difference between two hundred and sixteen and three hundred and nine?
6. Add five hundred and ninety three and three hundred and sixty eight.
7. What number is four hundred and sixty five less than seven hundred and twelve?
8. Increase $£ 5.73$ by $£ 6.45$.
9. What number is the sum of six hundred and forty and five hundred and seventy six?
10. Decrease 790 by 213.
11. Add together $£ 2.58, £ 6.27$ and $£ 7.03$
12. What number is two hundred and fourteen minus one hundred and seventeen?
13. Take $£ 271$ away from $£ 604$
14. If I increase a number by 382 and get 901, what number did I start with?
15. Add together 219 and 734 , then subtract 486 .

## Challenge

Use the digits 1 to 9 to make three numbers that add up to 900 .

