## Maths Addition and

## Subtraction Workbook



# Home Learning Maths Workbook Pack 

Year 3 Programme of Study - Addition and Subtraction

| Statutory Requirements | Worksheet | Page Number | Notes |
| :---: | :---: | :---: | :---: |
| A three digit number and ones | Adding ones to a 3 digit number worksheet <br> Subtracting ones from a 3 digit number worksheet | $\begin{gathered} 4 \\ 5 \end{gathered}$ |  |
| A three digit number and tens | Adding tens to a 3 digit number worksheet <br> Subtracting tens from a 3 digit number worksheet | $6$ $7$ |  |
| A three digit number and hundreds. | Adding hundreds to a 3 digit number worksheet <br> Subtracting hundreds from a 3 digit number worksheet | 8 <br> 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 <br> Number | Notes |
| :--- | :--- | :---: | :---: |
|  | Inverse checking 2 digit by 2 <br> digit mixed with carrying and <br> exchanging choice of method <br> worksheet <br> Inverse checking 3 digit by 2 <br> digit mixed with carrying and <br> exchanging choice of method <br> 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 set <br> of 3 numbers worksheet <br> Estimating Answers Worksheet | $22-23$ | $24-25$ |



Adding Ones to a 3 Digit Number
LO: to add ones to a 3 digit number

| Calculate the answer to the following: | Calculate the answer to the following: |
| :---: | :---: |
| 1) $136+3=$ | 9) $165+8=$ |
| 2) $212+4=$ | 10) $224+7=$ |
| 3) $381+6=$ | 11) $388+6=$ |
| 4) $494+5=$ | 12) $478+5=$ |
| 5) $533+4=$ | 13) $529+4=$ |
| 6) $620+7=$ | 14) $645+9=$ |
| 7) $725+4=$ | 15) $713+8=$ |
| 8) $952+7=$ | 16) $995+6=$ |
| Calculate the answer to the following: | Challenge |
| 17) $165+7=$ | Explain how you would |
| 18) $252+6=$ | use $7+8=15$ to |
| 19) $395+9=$ | calculate $537+8$. |
| 20) $478+1=$ |  |
| 21) $546+7=$ |  |
| 22) $659+3=$ | $\bigcirc$ |
| 23) $765+3=$ | $y$, |
| 24) $971+8=$ | 2 |

## Subtracting Ones from a 3 Digit Number

LO: to subtract ones from a 3 digit number

| Calculate the answer to the following: | Calculate the answer to the following: |
| :---: | :---: |
| 1) $166-3=$ | 9) $145-8=$ |
| 2) $295-4=$ | 10) $213-7=$ |
| 3) $307-5=$ | 11) $383-5=$ |
| 4) $489-7=$ | 12) $491-4=$ |
| 5) $578-4=$ | 13) $571-5=$ |
| 6) $636-2=$ | 14) $678-9=$ |
| 7) $794-3=$ | 15) $722-6=$ |
| 8) $959-8=$ | 16) $982-4=$ |
| Calculate the answer to the following: <br> 17) $122-6=$ <br> 18) 279 - $=271$ <br> 19) $\quad-7=329$ <br> 20) $459-3=$ <br> 21) $566-\ldots=557$ <br> 22) $659-4=$ <br> 23) $779-5=$ <br> 24) $-\quad-8=944$ | Challenge <br> Explain how you would use $14-8=6$ to calculate 384-8. |

## Adding Tens to a 3 Digit Number

LO: to add tens to a 3 digit number

| Calculate the answer to the following: | Calculate the answer to the following: |
| :---: | :---: |
| 1) $153+30=$ | 9) $142+80=$ |
| 2) $272+20=$ | 10) $267+70=$ |
| 3) $301+60=$ | 11) $398+60=$ |
| 4) $413+70=$ | 12) $451+50=$ |
| 5) $523+40=$ | 13) $564+80=$ |
| 6) $630+20=$ | 14) $675+90=$ |
| 7) $737+50=$ | 15) $761+70=$ |
| 8) $939+60=$ | 16) $964+60=$ |
| Calculate the answer to the following: <br> 17) $102+\ldots=172$ <br> 18) $282+60=$ <br> 19) $\ldots+30=424$ <br> 20) $488+40=$ <br> 21) $537+90=$ <br> 22) $\ldots+30=686$ <br> 23) $770+\ldots=850$ <br> 24) $961+70=$ | Challenge <br> Explain how you would use $8+6=14$ to calculate $783+60$. |

LO: to subtract tens from a 3 digit number

| Calculate the answer to the following: | Calculate the answer to the following: |
| :---: | :---: |
| 1) $178-30=$ | 9) $131-80=$ |
| 2) $282-40=$ | 10) $224-60=$ |
| 3) $377-50=$ | 11) $357-90=$ |
| 4) $495-70=$ | 12) $413-30=$ |
| 5) $581-40=$ | 13) $537-50=$ |
| 6) $625-20=$ | 14) $612-70=$ |
| 7) $767-50=$ | 15) $727-60=$ |
| 8) $992-80=$ | 16) $933-90=$ |
| Calculate the answer to the following: | Challenge |
| 17) $134-\ldots=74$ | Explain what other |
| 18) $213-80=$ | calculations you might use $13-8=5$ to calculate the |
| 19) $-70=276$ | answer |
| 20) $403-30=$ | -1 |
| 21) $\ldots-90=486$ | 603 [ $3^{93}$, |
| 22) $619-20=$ | * |
| 23) $717-\ldots=647$ | *** |
| 24) $941-50=$ | *. |

LO: to add hundreds to a 3 digit number


LO: to subtract hundreds from a 3 digit number

| Calculate the answer to the following: | Calculate the answer to the following: |
| :--- | :--- |
| 1) $353-200=$ | q) $268-200=$ |
| 2) $416-400=$ | 10) $416-100=$ |
| 3) $531-300=$ | 11) $547-300=$ |
| 4) $789-500=$ | 12) $346-100=$ |
| 5) $564-300=$ | 13) $564-400=$ |
| 6) $820-600=$ | 14) $893-600=$ |
| 7) $707-500=$ | 15) $507-500=$ |
| 819-700= | 16) $919-400=$ |

## Challenge

Take any 3 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 subtractions as possible, are there any patterns?

LO: to use column addition
Calculate the answer to the following:

| 1. $\begin{array}{r}534 \\ +\quad 45\end{array}$ | $\text { 2. } \begin{array}{r} 213 \\ +\quad 62 \end{array}$ | 3. $\begin{array}{r}304 \\ +\quad 84 \\ \hline\end{array}$ | 4. $\begin{array}{r}672 \\ +\quad 16\end{array}$ |
| :---: | :---: | :---: | :---: |
| 5. $\begin{array}{r}130 \\ +\quad 56 \\ \hline\end{array}$ | 6. $\begin{array}{r} 802 \\ +\quad 92 \end{array}$ | $\text { 7. } \begin{array}{r} 529 \\ +\quad 50 \end{array}$ | 8. $\begin{array}{r} 281 \\ +\quad 17 \end{array}$ |
| $\text { 9. } \begin{array}{r} 552 \\ +\quad 36 \end{array}$ | $\text { 10. } \begin{array}{r} 607 \\ +\begin{array}{r} 72 \end{array} \end{array}$ | $\begin{array}{r} 11 . \\ +\begin{array}{r} 628 \\ 21 \end{array} \end{array}$ | $\begin{array}{r} \text { 12. } \begin{array}{r} 327 \\ +51 \end{array} \end{array}$ |
| $\begin{array}{r} \hline 13 . \\ +\quad 474 \\ \hline 15 \end{array}$ | $\text { 14. } \begin{array}{r} 153 \\ +\begin{array}{l} 44 \end{array} \end{array}$ | $\begin{array}{r} 15 . \\ +\quad 371 \\ 22 \end{array}$ |  |

Challenge: Complete the following calculations:


LO: to use column addition
Calculate the answer to the following:

| $\begin{array}{r}673 \\ +\quad 18 \\ \hline\end{array}$ | $\begin{array}{r}457 \\ +\quad 25 \\ \hline\end{array}$ | 304 $+\quad 69$ | $\begin{array}{r}615 \\ +\quad 38 \\ \hline\end{array}$ |
| :---: | :---: | :---: | :---: |
| $\begin{array}{r}149 \\ +\quad 16 \\ \hline\end{array}$ | $\begin{array}{r}805 \\ +\quad 85 \\ \hline\end{array}$ | $\begin{array}{r}672 \\ +\quad 42 \\ \hline\end{array}$ | $\begin{array}{r}581 \\ +\quad 67 \\ \hline\end{array}$ |
| $\begin{array}{r}292 \\ +\quad 36 \\ \hline\end{array}$ | $\begin{array}{r}670 \\ +\quad 72 \\ \hline\end{array}$ | $\begin{array}{r}662 \\ +\quad 75 \\ \hline\end{array}$ | $\begin{array}{r}387 \\ +\quad 51 \\ \hline\end{array}$ |
| $\begin{array}{r}476 \\ +\quad 45 \\ \hline\end{array}$ | $\begin{array}{r}158 \\ +\quad 74 \\ \hline\end{array}$ | $\begin{array}{r}379 \\ +\quad 26 \\ \hline\end{array}$ |  |
| Challenge: Complete the following calculations: |  |  |  |
| + ${ }^{3 \_} \mathbf{2}$ | $+{ }^{-47}$ | + 8_8 |  |
| 437 | 796 | -4 |  |

Subtracting 2 Digit Numbers from 3 Digit Numbers No Exchanging

LO: to use column subtraction
Calculate the answer to the following:

| $\begin{array}{r} 479 \\ -\quad 18 \end{array}$ | $\begin{array}{r} 337 \\ -\quad 25 \end{array}$ | $\begin{array}{r} 584 \\ -\quad 61 \\ \hline \end{array}$ | $\begin{array}{r} 478 \\ -\quad 38 \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: |
| $\begin{array}{r} 748 \\ -\quad 16 \end{array}$ | $\begin{array}{r} 563 \\ -\quad 12 \end{array}$ | $\begin{array}{r} 652 \\ -\quad 32 \end{array}$ | $\begin{array}{r} 569 \\ -\quad 67 \\ \hline \end{array}$ |
| $\begin{array}{r} 298 \\ -\quad 36 \end{array}$ | $\begin{array}{r} 677 \\ -\quad 72 \end{array}$ | $\begin{array}{r} 697 \\ -\quad 75 \end{array}$ | $\begin{array}{r} 387 \\ -\quad 51 \end{array}$ |
| $\begin{array}{r} 486 \\ -\quad 45 \end{array}$ | $\begin{array}{r} 188 \\ -\quad 74 \end{array}$ | $\begin{array}{r} 379 \\ -\quad 26 \end{array}$ |  |

Challenge: Complete the following calculations:
 With Exchanging

LO: to use column subtraction
Calculate the answer to the following:

| $\begin{array}{r}343 \\ -\quad 18 \\ \hline\end{array}$ | $\begin{array}{r}641 \\ -\quad 25 \\ \hline\end{array}$ | $\begin{array}{r}472 \\ -\quad 67 \\ \hline\end{array}$ | $\begin{array}{r}473 \\ -\quad 38 \\ \hline\end{array}$ |
| :---: | :---: | :---: | :---: |
| - 620 | $\begin{array}{r}364 \\ -\quad 46 \\ \hline\end{array}$ | $\begin{array}{r}415 \\ -\quad 33 \\ \hline\end{array}$ | 528 $-\quad 67$ |
| $\begin{array}{r}126 \\ -\quad 31 \\ \hline\end{array}$ | $\begin{array}{r}673 \\ -\quad 82 \\ \hline\end{array}$ | - 607 | $\begin{array}{r}916 \\ -\quad 53 \\ \hline\end{array}$ |

Challenge: Complete the following calculations:

| 2_2 | 47- | 8_1 |
| :---: | :---: | :---: |
| - 3- | - _ 4 | - 6 |
| 220 | 449 | 24 |



Calculate the answer to the following:


LO: to use column addition
Calculate the answer to the following:


LO: to use column subtraction
Calculate the answer to the following:


Challenge: Complete the following calculations:


## With Exchanging

LO: to use column subtraction
Calculate the answer to the following:

| $\begin{array}{r} 451 \\ -\quad 218 \end{array}$ | $\begin{array}{r} 840 \\ -\quad 525 \end{array}$ | $\begin{array}{r} 472 \\ -\quad 238 \end{array}$ | $\begin{array}{r} 481 \\ -\quad 323 \end{array}$ |
| :---: | :---: | :---: | :---: |
| 690 | 726 | 427 | 519 |
| 526 | 419 | 233 | 450 |
| 353 | 627 | 622 | 951 |
| 136 | 258 | 394 | 652 |

Challenge: Complete the following calculations:


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

## LO: to check by using inverse

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.

| 1 | $76+45=$ | 2 | $97-38=$ |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  | $72-48=$ | 4 | $64+38=$ |
| 5 | $82-65=$ | 6 | $49+46=$ |
|  |  | 8 |  |
| 7 | $93+59=$ | $88-29=$ |  |
|  |  |  |  |

Challenge: explain how you might check your answer to this calculation.

$$
47+54+35=
$$

## Checking $\mathbf{3}$ by 2 Digit Mixed Calculations - With Carrying and Exchanging

## LO: to check by using inverse

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.

| 1 | $419+79=$ | 2 |
| :--- | :--- | :--- |
|  |  | $608-57=$ |
| 3 | $437-49=$ | 4 |
|  |  | $372+88=$ |
| 5 | $673-46=$ | 6 |
| 7 | $586+97=$ | $814+49=$ |
|  |  |  |

Challenge: use 2 different methods to calculate and check this calculation.
Can you explain which method you find better?

$$
365-87=
$$

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

## LO: to check by using inverse

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.

| $1245+356=$ | 2 562-347 = |
| :---: | :---: |
| 3 703-459 = | $4509+389=$ |
| 5 825-286= | 6 672 + 319 = |
| 7 592+209 = | 8 913-387= |

Challenge: explain how you might use the inverse to check this calculation.

$$
541+518+265=
$$

## Creating Addition and Subtraction Calculations

LO: to understand addition is the inverse of subtraction
Create 2 addition and 2 subtraction calculations from each set of 3 numbers


Create 2 addition and 2 subtraction calculations from each set of 3 numbers, writing the full calculations in the given box.

| 1 | 26 | 97 | 123 | 2 | 86 | 134 | 48 | 3 | 364 | 213 | 151 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | 652 | 589 | 63 | 5 | 572 | 801 | 229 | 6 | 371 | 912 | 1283 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## Estimating 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: $20+70=90$

## Estimating Addition:



1. $32+59=$

My estimate: $\square+\square=\{$
2. $23+28=$

4. $81+33=$

6. $59+92=$


## 8. $88+109=$


10. $353+281=$


## Estimating Subtraction:

1. $58-32=$

My estimate:
  ?
3. $104-51=$

My estimate:

2. $79-22=$

4. $121-33=$

My estimate:
 -

5. $129-27=$

My estimate:

6. $229-92=$

8. $288-109=$

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

My estimate: $\square-\square=$
9. $257-152=$

My estimate: $\square-\square=$

7. $132-17=$

My estimate: $\sim$ ?

## 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:


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! | 5 | 5 | Yes! |
|  |  | $8{ }^{1} 4$ |  | +2 | 9 |  |
|  |  | 29 |  | 8 | 4 |  |
|  |  | 55 |  |  |  |  |



LO: to solve word problems using addition and subtraction
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 on 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 $£ 5.67$. She spends $£ 2.85$ on a present for her brother. How much money does she have left?
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?


LO: to solve word problems using addition and subtraction
Solve the following problems:

1) What number is thirty 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 .

