


Day 70

Addition and Subtraction

Key Vocabulary	Addition and Subtraction Methods	
Add	<b>Add 4-digit numbers</b>	<b>Subtract 4-digit numbers</b>
Total	No exchange	No exchange
Plus		
Sum	$\begin{array}{r} 5162 \\ +3427 \\ \hline 8589 \end{array}$ <p>Starting with the ones, add each column in turn.</p>	$\begin{array}{r} 5789 \\ - 3421 \\ \hline 2368 \end{array}$ <p>Starting with the ones, subtract each column in turn.</p>
More		
Altogether	One exchange	One exchange
Difference		
Subtract	$\begin{array}{r} 5162 \\ +3497 \\ \hline 8659 \\ \phantom{0}1 \end{array}$ <p>Starting with the ones, add each column in turn. When adding 6 tens + 9 tens = 15 tens = 1 hundred + 5 tens Place 1 hundred under the hundreds answer and 5 tens in the answer.</p>	$\begin{array}{r} \phantom{6}1 \\ 5\cancel{7}49 \\ - 3471 \\ \hline 2278 \end{array}$ <p>Starting with the ones, subtract each column in turn. When subtracting 4 tens - 7 tens, exchange 1 hundred to make: 14 tens - 7 tens = 7 tens</p>
Less		
Minus		
Take away	Multiple exchanges	Multiple exchanges
Mentally, Orally		
Column Addition		
Column Subtraction		
Exchange	$\begin{array}{r} 5864 \\ +3497 \\ \hline 9361 \\ \phantom{0}111 \end{array}$ <p>Starting with the ones, add each column in turn. Exchange tens, hundreds and/ or thousands as required.</p>	$\begin{array}{r} \phantom{6}131 \\ 5\cancel{7}42 \\ - 3476 \\ \hline 2266 \end{array}$ <p>Starting with the ones, subtract each column in turn. Exchange tens, hundreds and/ or thousands as required.</p>
Estimate		
Inverse operation		
Solve problems	<b>Efficient subtraction</b>	
Number facts	<p>Calculate <math>6000 - 3617 = 2383</math></p>	
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## Add and Subtract 1s, 10s, 100s, 1000s

Here is the number 3124



Add 2 thousands = 5124

Add 5 hundreds = 5624

Subtract 2 tens = 5604

Add 5 ones = 5609

Here is the number 6708

Thousands	Hundreds	Tens	Ones
6	7	0	8

Add 3 thousands = 9708

Subtract 4 hundreds = 9308

Add 5 tens = 9358

Subtract 7 ones = 9351

**Crossing ones, tens or hundreds**

$5392 + 4 \text{ tens} = 5432$  crossing tens

$5126 - 600 = 4526$  crossing hundreds

When crossing ones, tens or hundreds, more than one digit will change.



## Round to Estimate

$$1635 + 386 = 2021$$

Round to the nearest ten

$$1640 + 390 = 2030$$

Round to the nearest hundred

$$1600 + 400 = 2000$$

Both give a reasonable estimate, but rounding the nearest ten is more accurate.

$$9362 - 5729 = 3622$$

Round to the nearest hundred

$$9400 - 5700 = 3700$$

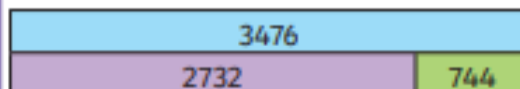
Round to the nearest thousand

$$9000 - 6000 = 3000$$

Rounding to the nearest hundred is much more accurate in this case.

## Checking Strategies

**Using Inverse**



$3476 - 744 = 2732$  can be checked using

$$2732 + 744 = 3476$$

This part whole shows the inverse calculations using these three numbers.



$1549 + 2688 = 4237$	$2688 + 1549 = 4237$
$4237 - 1549 = 2688$	$4237 - 2688 = 1549$

**Adding in a different order**

$$420 + 372 + 280 =$$

**Change to**

$$420 + 280 + 372 =$$

$$\text{As } 420 + 280 = 700$$

(because  $42 + 28 = 70$ )

$$420 + 280 + 372 = 700 + 372 = 1072$$

**Recall addition and subtraction facts within 20 fluently**

1.  $8 + 2 =$

2.  $20 - 6 =$

3.  $\square + 6 = 12$

4.  $13 - \square = 9$

5.  $15 = \square + 6$

**Add or subtract 3 single digit numbers mentally**

1.  $2 + 4 + 8 =$

2.  $9 - 2 - 4 =$

3. Roll a die 3 times and find out the sum of the numbers.

**Add or subtract three-digit numbers and ones mentally**

1.  $232 - 4 =$

2.  $445 + \square = 453$

3.  $\square - 9 = 338$

4. a. How much money do I have?



**20p**



**2p**



**1p**



**2p**



**£1**

4b. If I buy a toy which costs 9p, how much money do I have left?

## Add or subtract three-digit numbers and tens mentally

1. Fill in the missing numbers:

$$357 \quad \boxed{\phantom{000}} \quad 377 \quad 387 \quad 397 \quad \boxed{\phantom{000}}$$

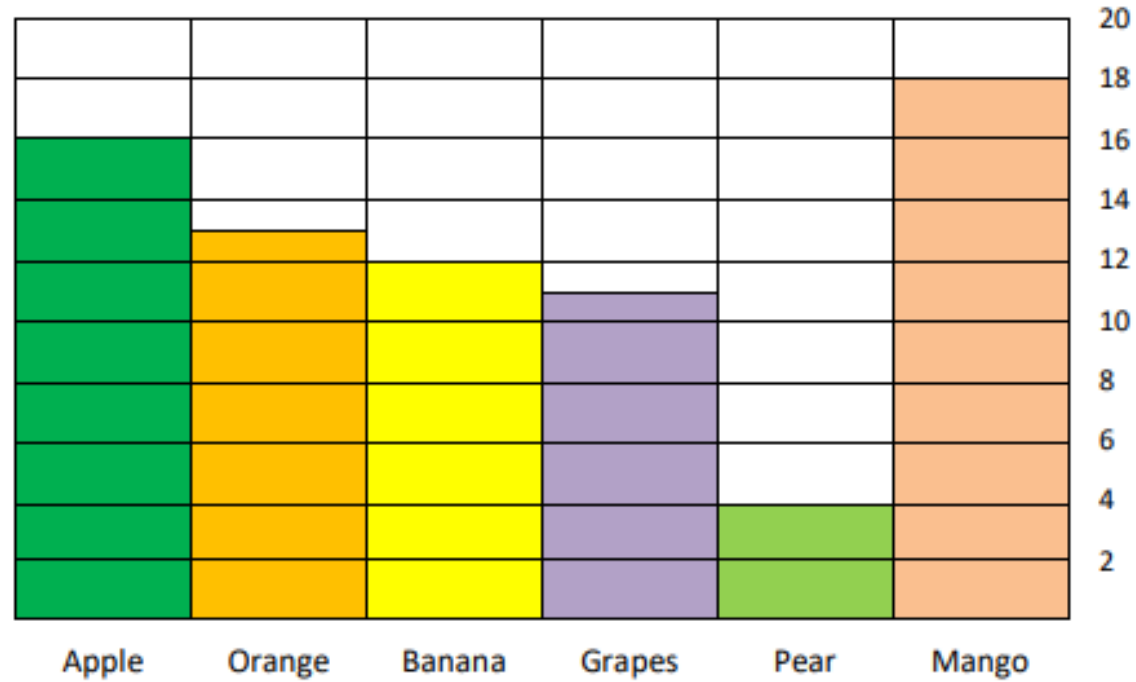
2.  $960 - \boxed{\phantom{000}} = 110$
3. How many 10p pieces do I need to add to 30p to make a pound?

## Subtract 2 two-digit numbers not bridging 10

1.  $68 - 45 =$
2. I have 47 marbles. 9 get lost under the sofa. I give 8 to my friend. My mum takes 6 away from me. How many marbles do I have left?

**Add 2 two-digit numbers not bridging 10**

1.  $15 + 24 =$
2. Here is a graph showing fruit children like to eat.



- a) How many children like apples and oranges altogether?
- b) How many more children prefer mango and banana to apple and orange?

**Add 2 two-digit numbers bridging 10**

1.  $56 + 38 =$

2. What are the missing numbers?

$$\begin{array}{r} \square \quad 6 \\ + \quad 5 \quad \square \\ \hline 1 \quad 5 \quad 3 \end{array}$$

3. It is 9.15 in the morning. English will start in thirty-seven minutes. What will the time be then?



**Subtract 2 two-digit numbers bridging 10**

1.  $84 - 67 =$

2.  $76 - \square = 39$

If I know the above fact, what other three number sentences do I know?

3. I have £82. I buy two chairs for £34 each. How much change do I get?