

# Unit 1 Number and problem solving

## Can you remember?

1  $73 + 27 =$

2  $730 +$    $= 1000$

3  $100 - 62 =$

4  $1000 -$    $= 620$

## Place value and the number system

1

Join the numbers with the correct digit value.  
An example has been done for you.

56 721
155 217
655 172
65 127
515 712

7 thousands
7 tens
10 thousands
6 thousands
60 thousands
2 hundreds

2

Circle the numbers that have a value larger than 45 300.

44 900

45 301

4 595

46 100

45 035

3

Look at the example. Then partition the rest of the amounts in the same way.  
 $\$74\,329 = \$70\,000 + \$4\,000 + \$300 + \$20 + \$9$

a  $\$47\,293 =$  \_\_\_\_\_

b  $\$47\,932 =$  \_\_\_\_\_

c  $\$79\,423 =$  \_\_\_\_\_

d  $\$179\,423 =$  \_\_\_\_\_

4

4

Use the values here to show how each of the five numbers below has been partitioned.

12 000

10 500

6 000

4 500

535

520

15

a  $18\,535 = \boxed{\phantom{00000}} + \boxed{\phantom{00000}} + \boxed{\phantom{00000}}$

b  $16\,515 = \boxed{\phantom{00000}} + \boxed{\phantom{00000}} + \boxed{\phantom{00000}}$

c  $15\,550 = \boxed{\phantom{00000}} + \boxed{\phantom{00000}} + \boxed{\phantom{00000}} + \boxed{\phantom{00000}}$

d  $11\,035 = \boxed{\phantom{00000}} + \boxed{\phantom{00000}} + \boxed{\phantom{00000}}$

e  $10\,515 = \boxed{\phantom{00000}} + \boxed{\phantom{00000}} + \boxed{\phantom{00000}}$

5

Complete the partitioning wall in your own way so that the number at the top is split into the number of parts in each row. Remember to check that each row is still equal in value to 547 628.

547 628					
500 000 + 40 000 +	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/> + 8
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/> + 620 +	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+ 28
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	
<input type="text"/>	+	<input type="text"/>			

6

Complete the calculations by filling in the missing numbers. Work down the columns.

$175 \times 100 = \boxed{\phantom{00000}}$

$2\,340 \div 10 = \boxed{\phantom{00000}}$

$17\,500 \div \boxed{\phantom{00000}} = 175$

$2\,345 \div \boxed{\phantom{00000}} = 234.5$

$175 \times 1\,000 = \boxed{\phantom{00000}}$

$2\,345 \times 100 = \boxed{\phantom{00000}}$

$175 \times 100 \times \boxed{\phantom{00000}} = 175\,000$

$234\,000 \div \boxed{\phantom{00000}} = 234$

# Rounding and estimating

1

Write the next and previous multiple of 10 for each number.  
Round each number to the nearest multiple of 10.

	4 867	4 897	4 895	3 562	2 562	2 902	2 905
Previous multiple of 10							
Next multiple of 10							
Rounded to the nearest multiple of 10							

2

Afia has rounded these capacities to the nearest 10 litres.

- a Which ones are correct?
- b Correct any mistakes that Afia has made.
- c Make up two more examples of capacities like the ones shown.

1 265 litres rounds to 1 270 litres

1 562 litres rounds to 1 560 litres

1 526 litres rounds to 1 520 litres

5 621 litres rounds to 6 520 litres

5 649 litres rounds to 5 650 litres

Tick (✓)

3

- a Complete the calculations and circle those with answers that do not round to 450.

$799 - 350 =$

$275 + 180 =$

$1000 - 555 =$

$89 + 354 =$

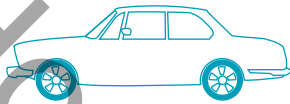
- b Write your own calculation with an answer that **does** round to 450.

4

Here are the prices of five different cars.

Use the letters to put the prices in order from lowest to highest.

A



\$17 950

B



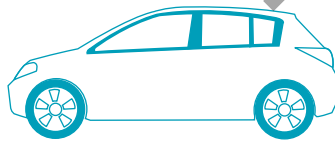
\$125 500

C



\$12 500

D



\$28 500

E



\$28 495

5

- a Draw an arrow from one number to the next to put the numbers in order from smallest to largest.

653 807

605 378

650 378

560 378

560 387

653 087

- b Choose three of the numbers to make this statement true.

 >  >

Addition and subtraction

1

The table shows the number of boys and girls in three different sports clubs.  
a Fill in the missing numbers.

	Boys	Girls	Total
Club A	75	68	
Club B		64	110
Club C	86		135

b How many girls are there in total? \_\_\_\_\_

2

Complete these calculations using a mental or written method.  
Look out for number bonds.

a  $54 + 46 + 27 =$  \_\_\_\_\_

b  $46 + 27 + 54 + 85 =$  \_\_\_\_\_

c  $254 + 146 + 27 =$  \_\_\_\_\_

d  $67 + 94 + 18 + 133 =$  \_\_\_\_\_

e  $356 + 247 + 244 =$  \_\_\_\_\_

3

3

5

0

1

6

- a Choose digits from those above to make an addition calculation with a four-digit answer greater than 5 000. You can use each digit more than once.
- \_\_\_\_\_
- b Choose digits to make an addition calculation with a three-digit answer less than 800.
- \_\_\_\_\_

4

Fill in the missing digits to make these calculations correct.

47

6

+ 2

341

175

2

+

78

3

48

+ 2

60

5

- a Choose to use a mental or written method to solve these calculations.

Work out the answers. Then write the calculation and your answer in the correct box to show your choice each time. One has been done for you.

Mental method		Written method
$187 + 13 = 200$	$187 + 13$	
	$7\,250 - 500$	
	$42 + 63 + 37 + 58$	
	$3\,585 + 2\,382$	
	$248 + 737 + 52$	
	$3\,585 - 1\,585$	
	$5\,762 + 238$	
	$5\,762 - 5\,757$	

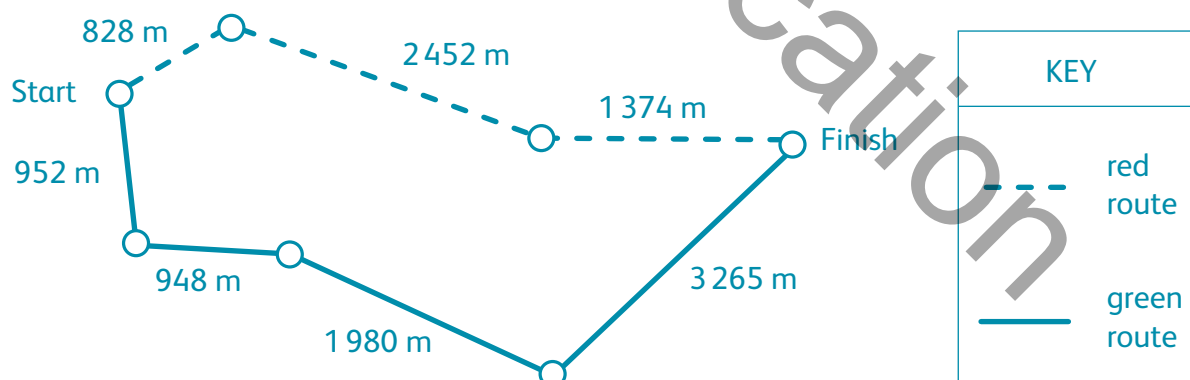
- b Write your own calculation to solve using a mental method and write another one to solve using a written method.

Mental method: \_\_\_\_\_

Written method: \_\_\_\_\_

6

- Tourists can choose to go on either the red route or the green route for a sightseeing tour around a city. Each route is split into shorter parts.



How much longer is the green route than the red route?

\_\_\_\_\_

# Self-assessment

## Unit 1 Number and problem solving



I understand this well.



I understand this, but I need more practice.



I don't understand this.



I need more help with ...

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### Self-check statements



I can read numbers to a million and say what each digit represents.

I can partition numbers up to one million into thousands, hundreds, tens and units.

I can multiply or divide any whole number to 10 000 by 10, 100 or 1 000.

I can round a four-digit number to the nearest multiple of ten.

I can order numbers up to a million and use the  $>$  and  $<$  signs correctly.

I can count forwards or backwards in thousands, hundreds, tens and units, and use this to add or subtract.

I can use mental methods and jottings to add or subtract pairs of two-digit and three-digit numbers.

I can use a written method to add several two-digit or three-digit numbers.

I can explain why I think a mental or written method may be best for a given calculation.

I can solve non-routine problems by breaking them into smaller parts.

I can add several numbers in different orders to check that an answer is correct.

I can use the fact that addition and subtraction are inverses to check answers.

I can estimate the answer to addition and subtraction calculations, and predict whether or not my estimate is greater or less than the actual answer.