

Name


Class

Tutor  
Group

# YEAR 7 MATHEMATICS

## Retrieval Booklet

### Half Term 1

	Year 7											
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number											
	Place Value			Addition, Subtraction and their Applications				Multiplication, Division and their Applications				Negative Numbers
Spring	Number						Algebra					
	Negative Numbers (continued)		Fractions				Algebraic Manipulation			Sequences		
Summer	Geometry and Measures				Number				Statistics and Probability			
	Angles				FDP				Probability, Venns and Two-Way Tables			

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# Cumulative R&R: Retrieve & Retain

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
1	Division of a single digit by 10						
2	Multiplication 2 digit x 1 digit numbers						
3	Missing fractions which sum to 1						
4	Multiplication 2 digit by 2 digit						
5	Subtraction of up to 3 digit numbers						
6	Finding missing numbers additions/subtraction						
7	Calculating change from £5						
8	Calculating a fraction of a quantity						
9	Comparing time intervals						
10	Language of shape						

## Week 1

<b>Question 1</b> Work out $14 \div 10$	<b>Question 2</b> Calculate $89 \times 3$
<b>Question 3</b> Complete $\frac{8}{10} + \frac{?}{10} = 1$	<b>Question 4</b> Calculate $13 \times 19$
<b>Question 5</b> Work out $280 - 214$	<b>Question 6</b> Find the missing number $306 + \text{_____} = 450$
<b>Question 7</b> How much change would you get from £5 if you spent £1 and 3p ?	<b>Question 8</b> Work out $\frac{1}{4}$ of 20?
<b>Question 9</b> Complete using $<$ or $>$ : 9 years ? 109 months	<b>Question 10</b> How many vertices does a parallelogram have?

## Week 2

<b>Question 1</b> Work out $7 \div 10$	<b>Question 2</b> Calculate $79 \times 2$
<b>Question 3</b> Complete $\frac{2}{3} + \frac{\boxed{?}}{3} = 1$	<b>Question 4</b> Calculate $14 \times 15$
<b>Question 5</b> Work out $697 - 232$	<b>Question 6</b> Find the missing number $442 - \underline{\hspace{2cm}} = 154$
<b>Question 7</b> How much change would you get from £5 if you spent £4 and 21p ?	<b>Question 8</b> Work out $\frac{1}{4}$ of 24?
<b>Question 9</b> Complete using $\leq$ or $>$ : 3 days ? 73 hours	<b>Question 10</b> Draw an acute angle

## Week 3

<b>Question 1</b> Work out $8 \div 10$	<b>Question 2</b> Calculate $99 \times 8$
<b>Question 3</b> Complete $\frac{4}{6} + \frac{\boxed{?}}{6} = 1$	<b>Question 4</b> Calculate $24 \times 12$
<b>Question 5</b> Subtract 174 from 477	<b>Question 6</b> Find the missing number $567 - \underline{\hspace{2cm}} = 261$
<b>Question 7</b> How much change would you get from £5 if you spent £1 and 13p ?	<b>Question 8</b> What is one third of 33 ?
<b>Question 9</b> Complete using $\leq$ or $>$ : 1459 days ? 4 years	<b>Question 10</b> How many edges does a cube have?

## Week 4

<b>Question 1</b> Work out $17 \div 10$	<b>Question 2</b> Calculate $79 \times 5$
<b>Question 3</b> Complete $\frac{3}{5} + \frac{?}{5} = 1$	<b>Question 4</b> Calculate $21 \times 14$
<b>Question 5</b> Subtract 214 from 673	<b>Question 6</b> Find the missing number $402 - \underline{\hspace{2cm}} = 243$
<b>Question 7</b> How much change would you get from £5 if you spent £4 and 38p ?	<b>Question 8</b> Work out $\frac{3}{4}$ of 8?
<b>Question 9</b> Complete using $\leq$ or $>$ : 193 hours ? 8 days	<b>Question 10</b> How many edges does a hexagon have?

## Week 5

<b>Question 1</b> Work out $22 \div 10$	<b>Question 2</b> Calculate $46 \times 8$
<b>Question 3</b> Complete $\frac{1}{3} + \frac{?}{3} = 1$	<b>Question 4</b> Calculate $17 \times 23$
<b>Question 5</b> Work out $472 - 321$	<b>Question 6</b> Find the missing number $469 + \underline{\hspace{2cm}} = 895$
<b>Question 7</b> How much change would you get from £5 if you spent £3 and 12p ?	<b>Question 8</b> What is three quarters of 88 ?
<b>Question 9</b> Complete using $\leq$ or $>$ : 1096 days ? 3 years	<b>Question 10</b> Draw an obtuse angle

# Week 6

<b>Question 1</b> Work out $24 \div 10$	<b>Question 2</b> Calculate $56 \times 3$
<b>Question 3</b> Complete $\frac{5}{7} + \frac{\boxed{?}}{7} = 1$	<b>Question 4</b> Calculate $23 \times 25$
<b>Question 5</b> Work out $718 - 597$	<b>Question 6</b> Find the missing number $420 + \text{_____} = 636$
<b>Question 7</b> How much change would you get from £5 if you spent £2 and 25p ?	<b>Question 8</b> Work out $\frac{1}{3}$ of 33?
<b>Question 9</b> Complete using $\leq$ or $>$ : 2 days ? 47 hours	<b>Question 10</b> How many edges does a decagon have?

# Week 7

<b>Question 1</b> Work out $3 \div 10$	<b>Question 2</b> Calculate $32 \times 2$
<b>Question 3</b> Complete $\frac{6}{7} + \frac{\boxed{?}}{7} = 1$	<b>Question 4</b> Calculate $14 \times 22$
<b>Question 5</b> Subtract 415 from 813	<b>Question 6</b> Find the missing number $744 + \text{_____} = 999$
<b>Question 7</b> How much change would you get from £5 if you spent £1 and 35p ?	<b>Question 8</b> Work out $\frac{3}{4}$ of 20?
<b>Question 9</b> Complete using $\leq$ or $>$ : 2921 days ? 8 years	<b>Question 10</b> How many vertices does a square based pyramid have?

# N1 Place Value

## Knowledge Organiser

Key Word	Definition
<b>Integer</b>	A whole number, can be positive or negative. No decimal or fractional part.
<b>Digit</b>	Any of the numerals 0-9 used to form a number
<b>Positive</b>	All numbers which appear to the right of the 0 on a number line.
<b>Inequality</b>	A relationship between two numbers or expressions that are not exactly equal.
<b>Decimal</b>	A number that is not whole, as it lies between whole numbers.
<b>Negative</b>	All numbers which appear to the left of the 0 on a number line.
<b>Rounding</b>	The process of finding an approximation for a number to a given accuracy
<b>Median</b>	The value at the centre of a numerically ordered list of values.
<b>Powers</b>	A way of showing a number is multiplied by itself a certain amount of times
<b>Standard Form</b>	A number is written in standard form when it is written in the form $a \times 10^n$ , where $1 \leq a < 10$ , and n is an integer.
<b>Binary</b>	A way of representing numbers using only two digits, 0 and 1.

# N1 Place Value

## Knowledge Organiser Quiz

Question	Answer
An <b>integer</b> is a _____ number. It can be _____ or _____. No decimal or fractional part.	
A <b>digit</b> is any of the numerals _____ used to form a number	
<b>Positive</b> numbers are numbers which appear to the _____ of the _____ on a number line.	
An <b>inequality</b> is a relationship between two numbers or expressions that are not exactly _____.	
A <b>decimal</b> is number that is not _____, as it lies _____ whole numbers.	
<b>Negative</b> numbers are numbers which appear to the _____ of the _____ on a number line.	
<b>Rounding</b> is the process of finding an _____ for a number to a given _____.	
The <b>median</b> is the value at the _____ of a numerically _____ list of values.	
<b>Powers</b> are a way of showing a number is _____ by itself a certain amount of times.	
A number is written in <b>standard form</b> when it is written in the form _____, where $1 \leq a < 10$ , and n is an integer.	
<b>Binary</b> is a way of representing numbers using only _____ digits, _____ and _____.	

# N1 Place Value

## End of Booklet Review

1. a) Write down the value of **6** in 5369

b) Write down the value of **6** in 260,000

c) Write down the value of **6** in 62,000,000

2. a) Write down the number **three hundred and nine** in figures

b) Write down the number **nine billion** in figures

c) Write down the number **seventy two thousand, eight hundred and six** in figures

3. Here are 4 digits

5

1

4

8

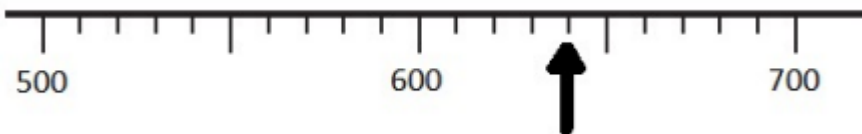
The digits can be arranged to make other numbers.

a) Write down the largest number that can be made

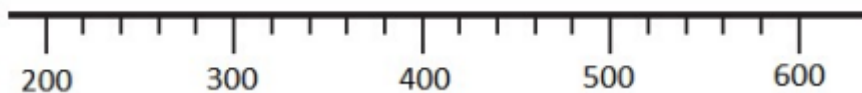
b) Write down the smallest number that can be made

c) Write down the smallest three digit number that can be made

4. a) Write down the number marked by the arrow on the number line below



b) Mark the number 440 on the number line below.



5. a) ? > 6. Circle the numbers that ? could be.

3      9      8      6      7

b) ? ≤ 5. Circle the numbers that ? could be.

5      6      3      0      7

# N1 Place Value

## End of Booklet Review

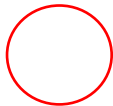
6. Write the following numbers in order of size, starting with the smallest number.

a) 32    47    18    52    33

b) 132    470    1080    52    1062

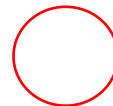
7. Insert the correct symbol,  $<$ ,  $>$ ,  $\leq$ ,  $\geq$ ,  $=$  or  $\neq$  between each pair of numbers:

a) 6.438



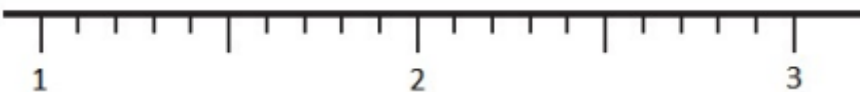
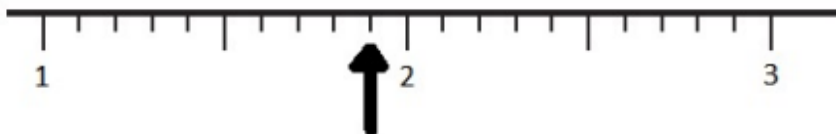
6.51

b) 0.78



0.705

8. Write down the number marked by the arrow on the number line above.



Find the number 2.7 on the number line above. Mark it with an arrow.

9. Write the following numbers in increasing order, i.e. start with the smallest one

0.37    0.3    0.307    0.73

0.27    0.2    0.216    0.299    0.2455

10. Arrange the following numbers in order from biggest to smallest

1, 7, 8, -5, -10, -4

6    -1    4    -5    10

# N1 Place Value

## End of Booklet Review

11. a) Round 3289 correct to the nearest thousand

b) Write 104.735 to the nearest 100

c) Round 6.45 to the nearest integer

12. a) Write 104.735 correct to 2 decimal places

b) Round 105.735 correct to 1 decimal place

c) Write 2.49 correct to 1 decimal place.

13. a) Write the number 104.735 to 3 significant figures.

b) 0.05076 to two significant figures.

14. A hockey team played 6 times.  
Here is the number of goals they scored in each game.

11      6      3      8      7      16

a) Work out the median number of goals scored in these six games.

# N1 Place Value

## End of Booklet Review

15. Convert 110000000 into standard form.

Convert 471500 into standard form.

Write  $0.92 \times 10^7$  in standard form

16.

The following numbers are all given in standard form. Write them in ascending order

$$6 \times 10^2, 4 \times 10^7, 1.2 \times 10^6, 1.46 \times 10^2, 8.5 \times 10^4$$

17. a) Write the following numbers in standard form:

i) 0.002

ii) 0.006015

b) Write the following numbers in ordinary form:

i)  $3 \times 10^{-6}$

ii)  $4.8 \times 10^{-4}$

18.

The following numbers are written in standard form. Write them in **descending** order

$$4.6 \times 10^{-1}, 1.98 \times 10^{-5}, 6 \times 10^{-2}, 3.2 \times 10^0, 2.8 \times 10^{-3}$$

19. a) Write the decimal number 55 as a binary number

b) Write the binary number 1011010 as a decimal number

# N1 Place Value

## End of Booklet Review

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
/3	/3	/3	/2	/2	/2	/2	/2	/2
A	B	C	D	E	F	G	H	I

Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19
/2	/3	/3	/2	/1	/3	/1	/4	/1	/2
J	K	L	M	N	O	P	Q	R	S

Complete these sections for the questions you didn't get full marks on 

# N1 Place Value

## End of Booklet Follow Up Questions

### Section A

a) Write down the value of **7** in 5379

b) Write down the value of **7** in 5739

c) Write down the value of **7** in 5937

d) Write down the value of **7** in 570,039

e) Write down the value of **7** in 7,000,000

f) Write down the value of **7** in 8,700,000

### Section B

a) Write down the number **six hundred and eight** in figures

b) Write down the number **four hundred and twenty** in figures

c) Write down the number **one thousand and six** in figures

d) Write down the number **eight billion** in figures

e) Write down the number **three billion, five hundred and twelve** in figures.

f) Write down the number **ninety one thousand, four hundred and thirteen** in figures

g) Write down the number **sixty seven thousand, four hundred and thirteen** in figures

# N1 Place Value

## End of Booklet Follow Up Questions

### Section C

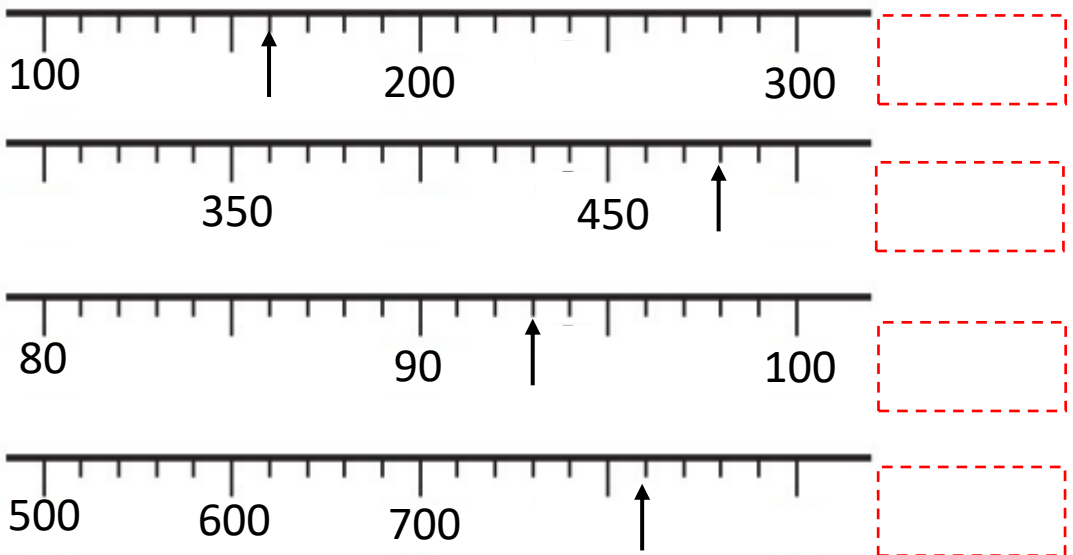
Here are five numbers    **7    4    9    6    2**

Using no card more than once, write down:

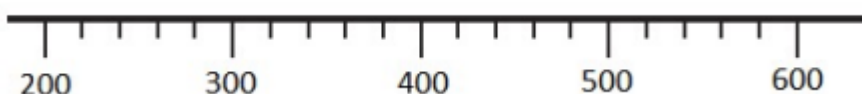
- a) The smallest 5 digit number you can make
- b) The largest 5 digit number you can make
- c) The smallest 4 digit number you can make
- d) The largest 4 digit number you can make
- e) The smallest 3 digit number you can make
- f) The largest 3 digit number you can make
- g) The smallest 2 digit number you can make
- h) The largest 2 digit number you can make


### Section D

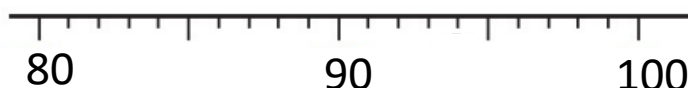
- a) Write down the numbers marked by the arrows on the number lines below



- b) Mark the number 360 on the number line below.



- c) Mark the number 87 on the number line below.



# N1 Place Value

## End of Booklet Follow Up Questions

### Section E

a)  $? > 7$ . Circle the numbers that ? could be.

3      9      8      6      7

b)  $? < 7$ . Circle the numbers that ? could be.

3      9      8      6      7

c)  $? \leq 7$ . Circle the numbers that ? could be.

3      9      8      6      7

d)  $? \geq 7$ . Circle the numbers that ? could be.

3      9      8      6      7

### Section F

Order these values from largest to smallest

a) 11, 20, 9, 15, 14, 3

b) 83, 18, 45, 37, 90, 21

c) 605, 56, 566, 655, 506, 65, 555

d) 2000, 375, 7100, 2900, 999, 400

e) 18123, 18200, 18032, 18103, 18013

### Section G

Insert the correct symbol,  $<$ ,  $>$ ,  $\leq$ ,  $\geq$ ,  $=$  or  $\neq$  between each pair of numbers:

a) 7.2  7.1

b) 0.5  0.6

c) 8.32  8.23

d) 0.59  0.506

e) 1.01  1.1

f) 3.9  3.09

g) 5.834  5.843

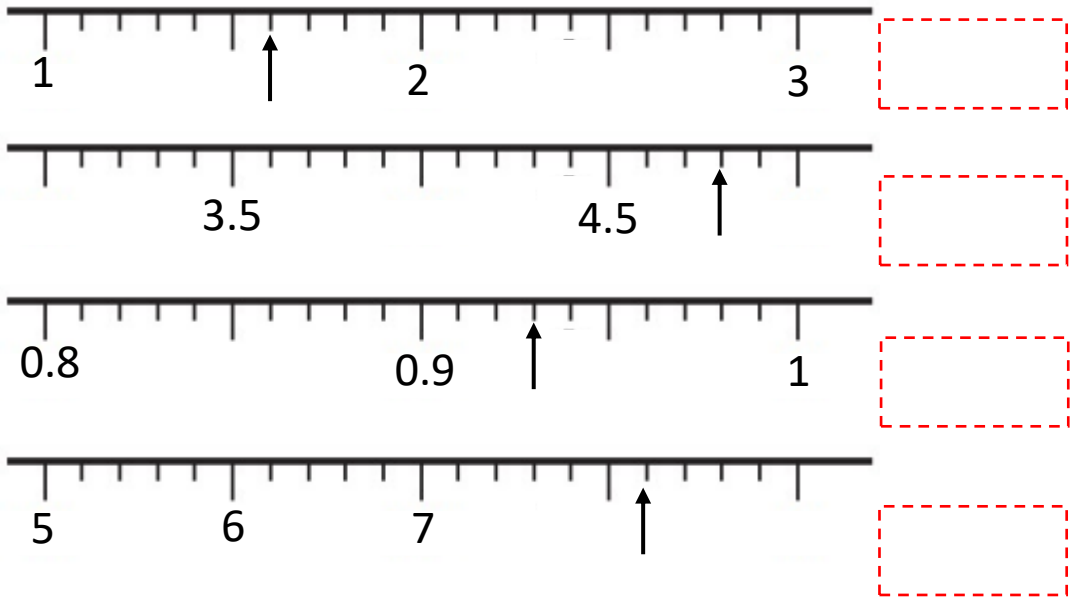
h) 62.391  62.0391

# N1 Place Value

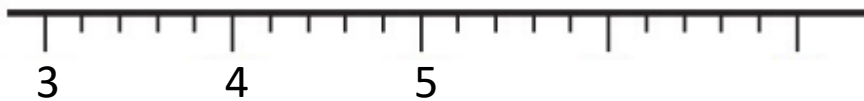
## End of Booklet Follow Up Questions

### Section H

a) Write down the numbers marked by the arrows on the number lines below



b) Mark the number 3.6 on the number line below.



c) Mark the number 0.87 on the number line below.



### Section I

Order from largest to smallest:

a) 9.13, 9.05, 9.24, 9.09, 9.15, 9.02

b) 1.54, 1.49, 1.58, 1.43, 2.12, 0.97

c) 1.3, 1.07, 1.14, 1.6, 1.39

d) 6.25, 6.2, 6.19, 6.08, 6.1, 6.21

e) 7.81, 7.49, 7.9, 7.007, 7.1, 7.107

f) 0.342, 0.075, 0.256, 0.34, 0.6, 0.4

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# N1 Place Value

## End of Booklet Follow Up Questions

### Section J

Order from smallest to largest:

a) 3, -5, 1, 0, -2, 4

b) -2, -8, -3, 5, -6, 1

c) 11, -9, -4, 7, -10, -3, -13

d) -25, 35, 15, -5, 25, -45, 20

e) 129, 101, -11, -111, 92, -91, 133, -29

### Section K

Round 18004 to the nearest

- a) Ten
- b) Hundred
- c) Thousand
- d) Ten thousand

Round 57.835 to the nearest

- a) Ten
- b) Hundred
- c) Integer

Round 1209.0845 to the nearest

- a) Ten
- b) Hundred
- c) Thousand
- d) Integer

### Section L

Round 64.50312 to

- a) 1dp
- b) 2dp
- c) 3dp
- d) 4dp

Round 28.1793 to

- a) 1dp
- b) 2dp
- c) 3dp

Round 1209.00845 to

- a) 1dp
- b) 2dp
- c) 3dp
- d) 4dp

# N1 Place Value

## End of Booklet Follow Up Questions

### Section M

Round 18004 to

- a) 1 significant figure
- b) 2 significant figures
- c) 3 significant figures
- d) 4 significant figures

Round 57.835 to

- a) 1 significant figure
- b) 2 significant figures
- c) 3 significant figures

Round 0.80425 to

- a) 1 significant figure
- b) 2 significant figures
- c) 3 significant figures
- d) 4 significant figures

### Section N

Calculate the median of the following:

- a) 605, 56, 566, 655, 506, 65, 555

- b) 18123, 18200, 18032, 18103, 18013

- c) 1.3, 1.07, 1.14, 1.6, 1.39

- d) 2000, 375, 7100, 2900, 999, 400

- e) 11, 20, 9, 15, 14, 3

- f) 83, 18, 45, 37, 90, 21

- g) 11, -9, -4, 7, -10, -3, -13

- h) -25, 35, 15, -5, 25, -45, 20

### Section O

Write the following numbers in standard form:

43500

$72 \times 10^3$

9804000

$0.8 \times 10^7$

93508000

$3000 \times 10^{14}$

804000

$0.46 \times 10^5$

### Section P

Write the following numbers in ascending order:

- a)  $3 \times 10^4$

$9 \times 10^3$

$6 \times 10^6$

$2 \times 10^{10}$

- b)  $5 \times 10^7$

$1.2 \times 10^2$

$2.9 \times 10^5$

$8.4 \times 10^8$

- c)  $7.7 \times 10^4$

$3.51 \times 10^5$

$9.89 \times 10^7$

$1.27 \times 10^9$

# N1 Place Value

## End of Booklet Follow Up Questions

### Section Q

Write the following numbers in standard form:

0.00065

0.0022

0.0361

0.000558

Write the following numbers in ordinary form:

$3.16 \times 10^{-5}$

$8.62 \times 10^{-4}$

$7.09 \times 10^{-6}$

$5.71 \times 10^{-3}$

### Section R

Write the following numbers in descending order:

$2 \times 10^{-3}$

$7 \times 10^{-2}$

$3 \times 10^{-6}$

$9 \times 10^{-8}$

$4.8 \times 10^{-4}$

$6.7 \times 10^{-3}$

$9.2 \times 10^{-6}$

$4.1 \times 10^{-2}$

$2.05 \times 10^{-8}$

$4.112 \times 10^{-2}$

$1.651 \times 10^{-3}$

$2.0019 \times 10^{-7}$

### Section S

Convert the following from decimal to binary numbers

7

37

15

59

Convert the following from binary to decimal numbers

11101

100011

101111

111101

# N2 Addition, Subtraction and their Applications

## Knowledge Organiser

Key Word	Definition
<b>Addition</b>	The process of calculating the total of two or more numbers.
<b>Subtraction</b>	A mathematical operation in which the difference between two numbers or quantities is calculated. Usually indicated by the symbol '−'.
<b>Commutative</b>	Of a calculation, giving the same result whatever order the values are in.
<b>Associative</b>	Of a calculation, giving the same result however the values are grouped.
<b>Integer</b>	A whole number, can be positive or negative. No decimal or fractional part.
<b>Decimal</b>	A number that is not whole, as it lies between whole numbers.
<b>Perimeter</b>	The total length of the distance around the outside of a shape.
<b>Irregular Shape</b>	Shapes which do not have same side lengths or same size angles
<b>Regular Shape</b>	Shapes with all sides of equal length and all angles of equal measure
<b>Parallelogram</b>	A quadrilateral with both pairs of opposite sides parallel to each other
<b>Trapezium</b>	A quadrilateral with two parallel sides of unequal length.
<b>Isosceles</b>	In a triangle, with two sides of equal length. In a trapezium, with the two nonparallel sides of equal length.
<b>Compound</b>	A shape made up of two or more basic shapes
<b>Frequency</b>	The number of times that an event occurs within a given period
<b>Standard Form</b>	A number is written in standard form when it is written in the form $a \times 10^n$ , where $1 \leq a < 10$ , and n is an integer.

# N2 Addition, Subtraction and their Applications

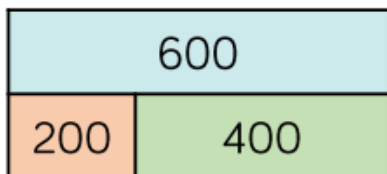
## Knowledge Organiser Quiz

Question	Answer
<b>Addition</b> is the process of _____ the _____ of two or more numbers.	
<b>Subtraction</b> is a mathematical operation in which the _____ between two numbers or quantities is calculated. Usually indicated by the symbol _____.	
<b>Commutative</b> , of a calculation, is giving the _____ result whatever _____ the values are in.	
<b>Associative</b> , of a calculation, is giving the _____ result however the values are _____.	
An <b>integer</b> is a _____ number. It can be _____ or _____. No decimal or fractional part.	
A <b>decimal</b> is number that is not _____, as it lies _____ whole numbers.	
A <b>perimeter</b> is the total _____ of the distance around the _____ of a shape.	
<b>Irregular Shapes</b> are shapes which do not have same _____ or same size _____.	
<b>Regular Shapes</b> are shapes with all sides of _____ and all angles of _____.	
A <b>parallelogram</b> is a quadrilateral with both pairs of _____ sides _____ to each other.	
A <b>trapezium</b> is a quadrilateral with two _____ sides of _____ length.	
An <b>isosceles</b> triangle has two _____ of _____. An <b>isosceles</b> trapezium has two _____ sides of equal length.	
A <b>compound shape</b> is a shape made up of _____ or more basic _____.	
<b>Frequency</b> is the _____ of times that an _____ occurs within a given period	
A number is written in <b>standard form</b> when it is written in the form _____, where $1 \leq a < 10$ , and n is an integer.	

# N2 Addition, Subtraction and their Applications

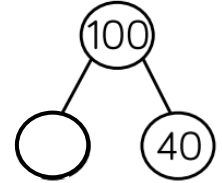
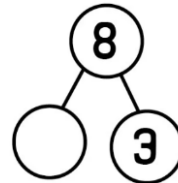
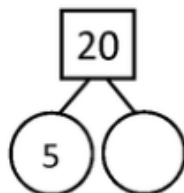
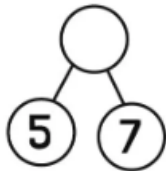
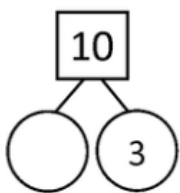
## End of Booklet Review

1. Use the bar model to complete the number sentences:



$$\begin{array}{rcl} \underline{\quad} + \underline{\quad} & = & 600 \\ \underline{\quad} + \underline{\quad} & = & 600 \\ \underline{\quad} - \underline{\quad} & = & 400 \\ \underline{\quad} - \underline{\quad} & = & 200 \end{array} \quad \begin{array}{rcl} 600 & = & \underline{\quad} + \underline{\quad} \\ 600 & = & \underline{\quad} + \underline{\quad} \\ 400 & = & \underline{\quad} - \underline{\quad} \\ 200 & = & \underline{\quad} - \underline{\quad} \end{array}$$

2. Complete the part-whole models:



$50 + 40 = \boxed{\phantom{00}}$

$80 = 30 + \boxed{\phantom{00}}$

$40 = \boxed{\phantom{00}} - 60$

$17 + 5 = \boxed{\phantom{00}}$

$22 - 7 = \boxed{\phantom{00}}$

$23 - 9 = \boxed{\phantom{00}}$

$5 + 3 = 6 + \boxed{\phantom{00}}$

$\boxed{\phantom{00}} + 4 = 5 + 5$

3.

a) Which of the following represents the commutative property of addition?

$9 + 7 = 7 + 9$

$5 + 1 = 4 + 2$

$8 + 3 = 6 + 5$

b) Which of the following does not represent the commutative property of addition?

$8 + 6 = 6 + 8$

$10 + 2 = 10 + 2$

$4 + 5 = 5 + 4$

c) If  $356 + 79 = 435$ , then  $79 + 356 = \boxed{\phantom{000}}$

d) Complete the following:  $(10 + 1) + 8 = \boxed{\phantom{00}}$

$10 + (1 + 8) = \boxed{\phantom{00}}$

Property:  $\boxed{\phantom{00}}$

e)  $(125 + 347) + 88 = 125 + (347 + \boxed{\phantom{00}})$

## End of Booklet Review

a)  $53 + 41 =$

b)  $44 + 37 =$

c)  $85 + 29 =$

d)  $113 + 49 =$

e)  $416 + 87 =$

f)  $817 + 306 =$

g)  $752 + 489 =$

h)  $1487 + 336 =$

	—	—	—	—
+	6	3	9	5
	8	9	4	9

	6	?	?	8
+	?	?	8	?
	9	3	2	5

[illegible]

# N2 Addition, Subtraction and their Applications

## End of Booklet Review

5. Calculate the following:

a)  $5.3 + 4.1 =$

b)  $44 + 3.7 =$

c)  $8.5 + 29 =$

d)  $11.3 + 4.9 =$

e)  $4.16 + 0.87 =$

f)  $0.817 + 3.06 =$

g)  $0.752 + 0.489 =$

h)  $1.487 + 0.336 =$

i) Fill in the missing digits:

	8	.		
+		.	3	9
	8	.	9	4
				9

j) Decide whether each of these are ways to set out  $4.38 + 7.9$

4	.	3	8	
	7	.	9	+

4	.	3	8	
7	.	9		+

# N2 Addition, Subtraction and their Applications

## End of Booklet Review

6. Calculate the following:

a)  $53 - 41 =$

b)  $44 - 37 =$

c)  $85 - 29 =$

d)  $113 - 49 =$

e)  $416 - 87 =$

f)  $817 - 306 =$

g)  $752 - 489 =$

h)  $1487 - 336 =$

i)  $400 - 287 =$

j)  $1000 - 649 =$

k) Rosie completes this subtraction incorrectly. Explain her mistake and how to correct it.

$$\begin{array}{r} 28701 \\ - 7621 \\ \hline 21180 \end{array}$$

# N2 Addition, Subtraction and their Applications

## End of Booklet Review

7. Calculate the following:

a)  $5.3 - 4.1 =$

b)  $4.4 - 3.7 =$

c)  $8.5 - 0.29 =$

d)  $1.13 - 0.49 =$

e)  $41.6 - 0.87 =$

f)  $8.17 - 0.306 =$

g)  $75.2 - 4.89 =$

h)  $1 - 0.7 =$

i)  $1 - 0.46 =$

j)  $1 - 0.649 =$

k) Spot the mistake:

	8	.	1	6
-	3	.	5	4
	5	.	4	2

# N2 Addition, Subtraction and their Applications

## End of Booklet Review

8.

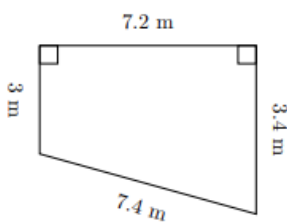
- a) John spends £112.50 on ingredients and £17.80 on advertising for a cake sale. He sells all the cakes for a total of £145.12. Does he make a profit or a loss? How much profit or loss does he make?

- b) Complete the bank statement.

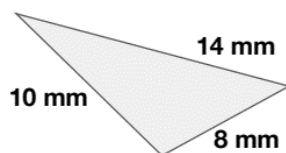
Date	Description	Credit (£)	Debit (£)	Balance (£)
Mar 1	Opening balance			93.68
Mar 3	Gas bill		84.17	
Mar 7	Wages	312.72		
Mar 9	Rent		145.10	

9. Work out the perimeters of each of these irregular polygons:

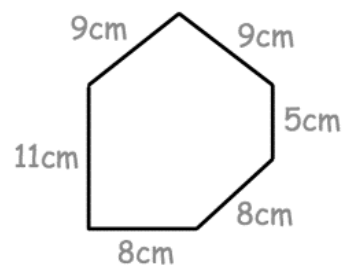
a)



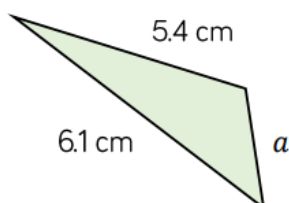
b)



c)



- d) The perimeter of this shape is 14.2cm. What is the length of the missing side?

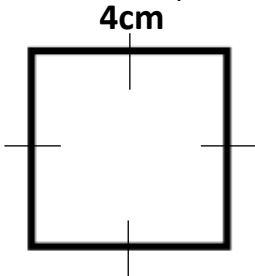


# N2 Addition, Subtraction and their Applications

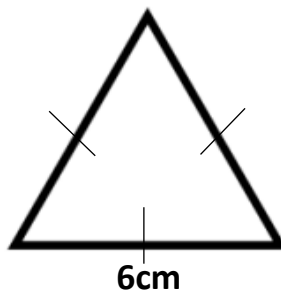
## End of Booklet Review

10. Work out the perimeters of each of these regular polygons:

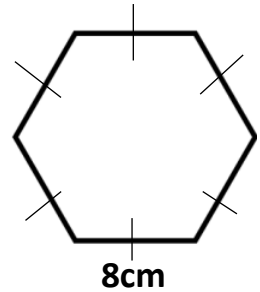
a)



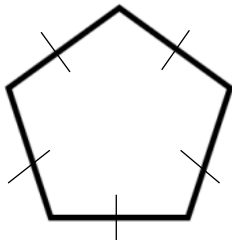

b)




c)

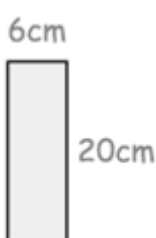



d) The regular pentagon below has perimeter 35cm. Calculate the length of one side length.

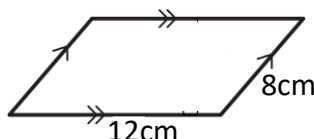



11. Work out the perimeters of each of these rectangles and parallelograms:

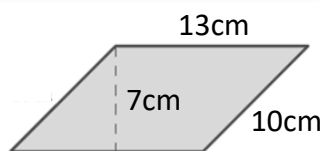
a)



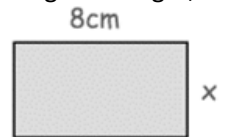

b)




c)



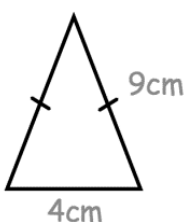

d) Calculate the missing side length, x:



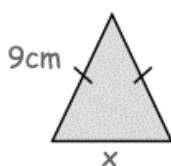
Perimeter = 26cm

12. Work out the perimeters of each of these isosceles triangles and isosceles trapezia:

a)

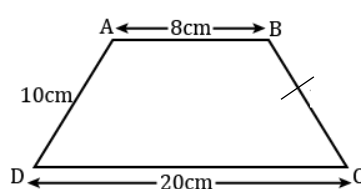



b) Calculate the missing side length, x:

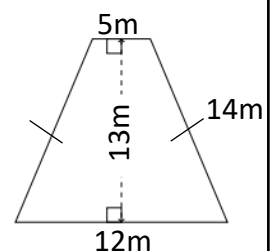


Perimeter = 25cm

c)




d)

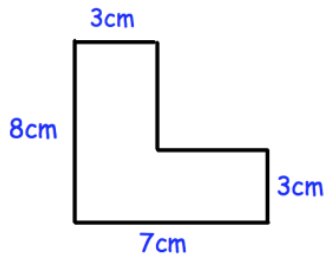


# N2 Addition, Subtraction and their Applications

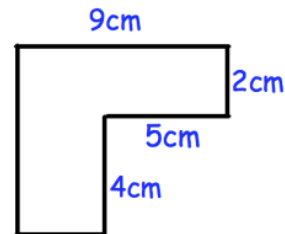
## End of Booklet Review

13. Work out the perimeters of each of these compound shapes:

a)



b)



14. a) The table below shows part of the results of a survey in a school with 900 students. Complete the table below:

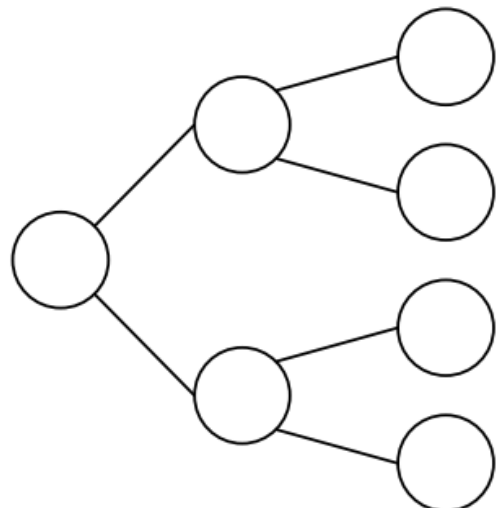
	Left-handed	Right-handed	Total
Girls	34		361
Boys		463	
Total			

b) Here is a bus timetable. How long does it take to get to Ware, if you take the 1005 bus from Harton?

Harton	1005	1045	1130
Bridge	1024	1106	1147
Aville	1051	1133	1205
Ware	1117	1202	1233

15. a) Complete the frequency tree, using the information below:

80 people took their driving test one week.  
45 of the people were men.  
28 of the men passed their test.  
27 of the women passed their test.



b) How many more men than women did not pass their test?

# N2 Addition, Subtraction and their Applications

## End of Booklet Review

16. Calculate:

a)  $5 \times 10^4 + 3 \times 10^4 =$

b)  $4 \times 10^3 - 2 \times 10^3 =$

c)  $2.6 \times 10^8 + 4.5 \times 10^9 =$

d)  $5.12 \times 10^5 - 1.89 \times 10^4 =$

e)  $7 \times 10^{-2} + 2 \times 10^{-2} =$

f)  $6.12 \times 10^{-3} - 1.07 \times 10^{-2} =$

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
/8	/13	/7	/10	/11	/11	/11	/4
A	B	C	D	E	F	G	H

Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
/4	/4	/4	/4	/2	/7	/8	/6
I	J	K	L	M	N	O	P

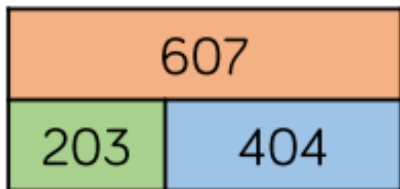
Complete these sections for the questions you didn't get full marks on \_\_\_\_\_

# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

### Section A

Use the bar model to complete the number sentences:

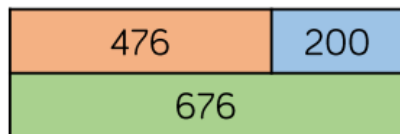


$$\underline{\quad} + \underline{\quad} = 607$$

$$\underline{\quad} - \underline{\quad} = 404$$

$$\underline{\quad} + \underline{\quad} = 607$$

$$\underline{\quad} - \underline{\quad} = 203$$

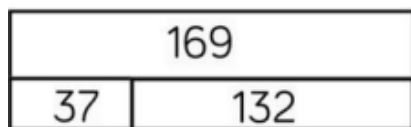


$$\underline{\quad} + \underline{\quad} = 676$$

$$\underline{\quad} - \underline{\quad} = 200$$

$$\underline{\quad} + \underline{\quad} = 676$$

$$\underline{\quad} - \underline{\quad} = 476$$



$$\underline{\quad} + \underline{\quad} = 169$$

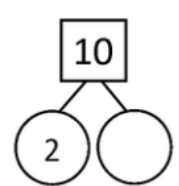
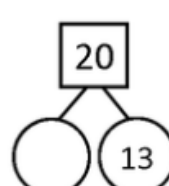
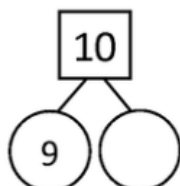
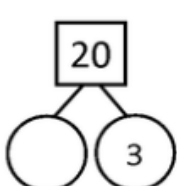
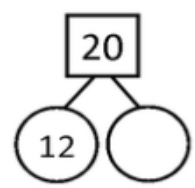
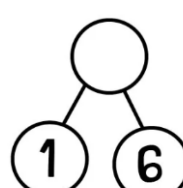
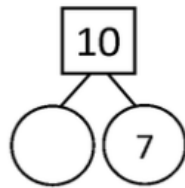
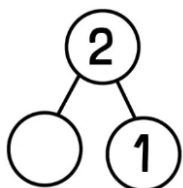
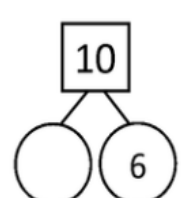
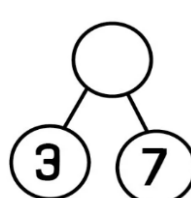
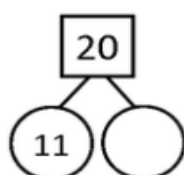
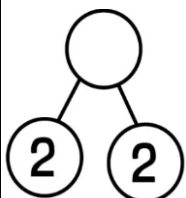
$$\underline{\quad} - \underline{\quad} = 37$$

$$\underline{\quad} + \underline{\quad} = 169$$

$$\underline{\quad} - \underline{\quad} = 132$$

### Section B

Complete the part-whole models:



# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

### Section B (continued)

a)  $30 + 60 =$

b)  $20 + 50 =$

c)  $70 = 40 +$

d)  $60 = 50 +$

e)  $30 =$    $- 20$

f)  $40 =$    $- 20$

g)  $18 + 5 =$

h)  $16 + 7 =$

i)  $24 - 6 =$

j)  $22 - 5 =$

k)  $25 - 9 =$

l)  $27 - 9 =$

m)  $3 + 4 = 6 +$

n)   $+ 3 = 5 + 4$

o)  $4 + 7 =$    $+ 8$

p)  $6 +$    $= 7 + 8$

### Section C

a)  $5 + 6 =$    $+ 5$

$6 + 5 = 5 +$

Property:

b)  $(9 + 3) + 6 =$    $+ (3 + 6)$

$9 + (3 + 6) = (9 +$    $) + 6$

Property:

c)  $(20 + 284) + 76 =$    $+ (284 + 76)$

$20 + (284 + 76) = (20 +$    $) + 76$

Property:

d)  $110 + 94 =$    $+ 94$

$94 + 110 = 110 +$

Property:

e) If  $274 + 81 = 355$ , then  $81 + 274 =$

f) If  $961 + 412 = 1373$ , then  $412 + 961 =$

g) If  $(10 + 4) + 5 = 19$ , then  $10 + (4 + 5) =$

h) If  $6 + (8 + 4) = 18$ , then  $(6 + 8) + 4 =$

i) If  $(450 + 324) + 63 = 837$ , then  $450 + (324 + 63) =$

# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

### Section D

a)  $16 + 299 =$

b)  $6093 + 21 =$

c)  $96 + 900 =$

d)  $118 + 8391 =$

e)  $2054 + 3822 =$

f)  $2690 + 62 =$

g)  $25 + 56 =$

h)  $2621 + 98 =$

i)  $237 + 33 =$

j)  $270 + 684 =$

h)  $427 + 632 =$

i)  $8289 + 685 =$

j)  $7707 + 5226 =$

k)  $690 + 287 =$

l)  $4617 + 213 =$

m)  $497 + 63 =$

n)  $951 + 40 =$

o)  $48 + 692 =$

p)  $2138 + 766 =$

q)  $73 + 4286 =$

Fill in the missing digits:

a) 

		0	7
+	4		
	9	5	8

b) 

+	2	3	4
	9	1	7

c) 

	2	3	
+			5
	4	2	9

### Section E

a)  $28.49 + 3.2 =$

b)  $408.9 + 3.8 =$

c)  $8.993 + 7.6 =$

d)  $33.6 + 2.306 =$

e)  $96.63 + 1.27 =$

f)  $140.639 + 91.41 =$

g)  $366.56 + 238.66 =$

h)  $364.1 + 46.85 =$

i)  $41.11 + 2.857 =$

j)  $723.488 + 53.673 =$

Fill in the missing digits:

	6	8	•	1	8
+			•	8	
	7	3	•		5

Decide whether each of these are ways to set out  $4.38 + 7.9$

4	.	3	8	
7	.	9	0	+

4	.	3	8	
7	.	9	+	

# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

### Section F

a)  $874 - 362 =$

b)  $384 - 183 =$

c)  $876 - 162 =$

d)  $583 - 75 =$

e)  $2743 - 634 =$

f)  $4365 - 1256 =$

g)  $5824 - 498 =$

h)  $413 - 227 =$

i)  $341 - 97 =$

j)  $3827 - 171 =$

h)  $2913 - 117 =$

i)  $975 - 349 =$

j)  $5189 - 192 =$

k)  $543 - 199 =$

l)  $7521 - 238 =$

m)  $4265 - 2098 =$

n)  $6234 - 152 =$

o)  $1875 - 299 =$

p)  $4231 - 748 =$

q)  $6792 - 2568 =$

Spot the mistakes:

a)

	2	4	0	7	
-	2	3	3	6	
	1	3	1		

b)

	5	6	8	8	
-	1	0	3		
	4	6	5	8	

c)

	2	7	3	8	
-		6	5	5	
	2	1	8	3	

d)

	4	0	5	0	
-	3	7	2	6	
	1	7	2	4	

### Section G

a)  $8.56 - 2.34 =$

f)  $15.6 - 4.38 =$

b)  $3.854 - 2.464 =$

g)  $5.42 - 0.217 =$

c)  $23.42 - 6.78 =$

h)  $0.74 - 0.019 =$

d)  $12.34 - 8.99 =$

i)  $6.8 - 1.92 =$

e)  $145.891 - 23.568 =$

j)  $186.03 - 0.824 =$

# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

### Section G (continued)

Spot the mistakes:

a)

	7	.	6	
-	6	.	5	4
	1	.	1	4

b)

	5	.	3	9
-	3	.	0	7
	2	.	3	6

c)

	5	.	8	3
-		2	.	4
	3	.	7	9

### Section H

- a) A bracelet costs £3.99 and a bobble costs £1.29. How much change should there be from £10 if I buy both items?
- b) A pair of shoes cost £29.99 and a belt costs £12.49. How much change should there be from £50 if I buy both items?
- c) A shirt costs £14.99 and a pair of socks costs £3.49. How much change should there be from £30 if I buy both items?
- d) A book costs £8.99 and a pen costs £1.79. How much change should there be from £15 if I buy both items?
- e) A toy car costs £5.99 and a puzzle costs £2.49. How much change should there be from £20 if I buy both items?
- f) A pack of sweets cost £1.49 and a bottle of juice costs £2.99. How much change should there be from £5 if I buy both items?
- g) Complete the bank statement:

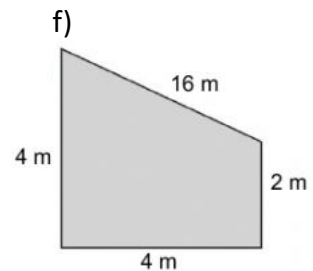
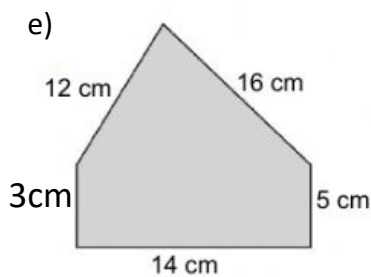
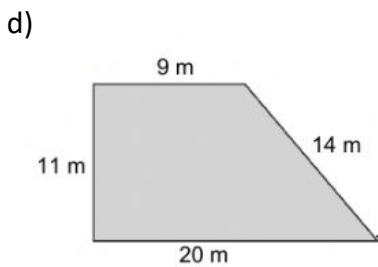
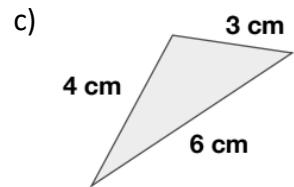
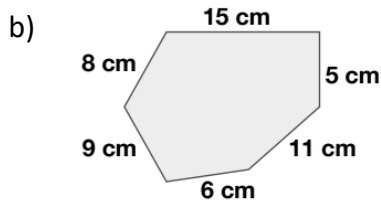
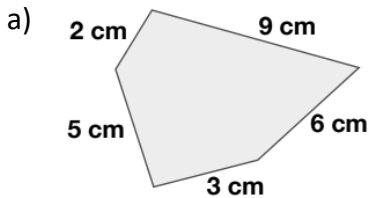
Transaction	Deposit (£)	Withdrawal (£)	Balance (£)
Opening Balance	-	-	
Salary	1500.25	-	
Rent	-	800.99	
Groceries	-	120.55	
Electricity Bill	-	80.75	
Bonus	50.80	-	

# N2 Addition, Subtraction and their Applications

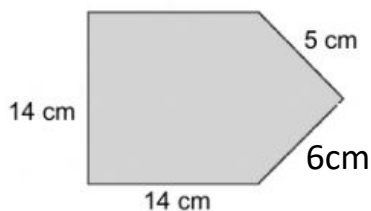
## End of Booklet Follow Up Questions

### Section I

Work out the perimeters of each of these irregular polygons:

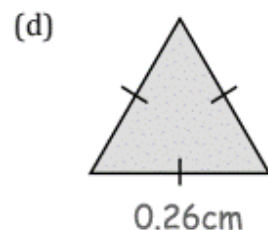
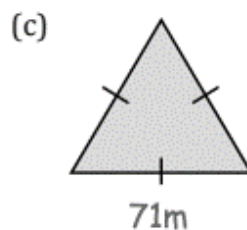
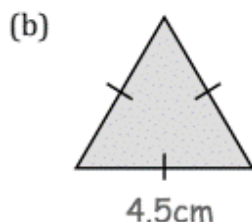
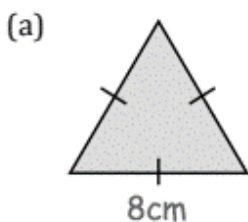


g) The perimeter of the irregular polygon below is 49cm. Calculate the missing side length.



### Section J

Work out the perimeters of each of these regular polygons:



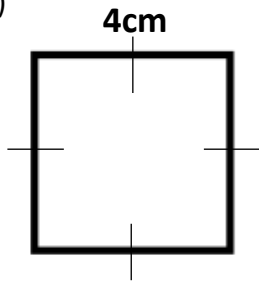
# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

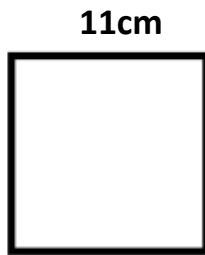
Section J (continued)

Work out the perimeters of each of these regular polygons:

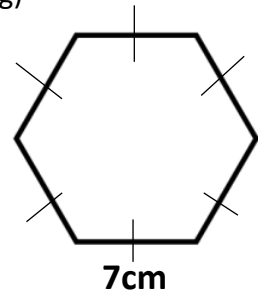
e)



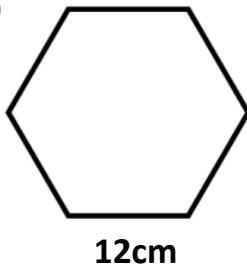
f)



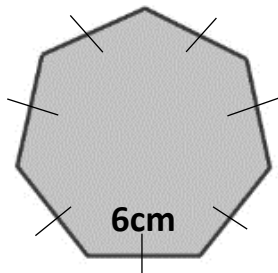
g)



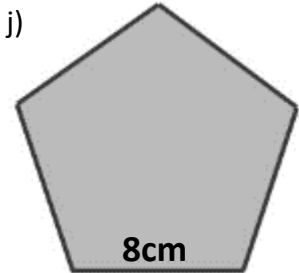
h)



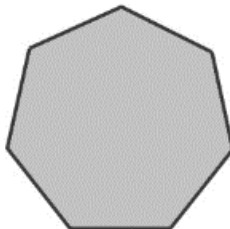
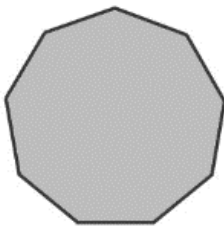
i)



j)



k) The perimeters of each of the regular polygons below are 63cm. Calculate the missing side lengths.

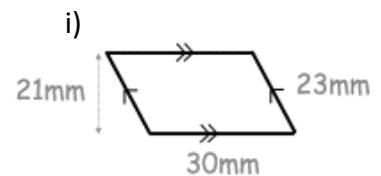
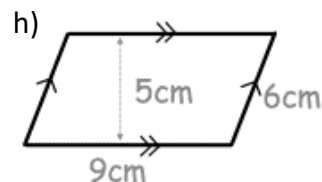
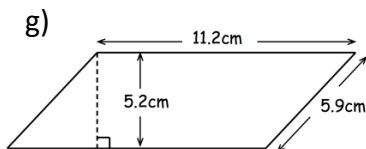
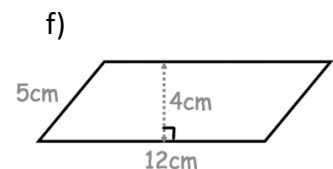
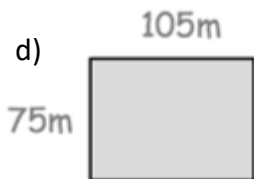
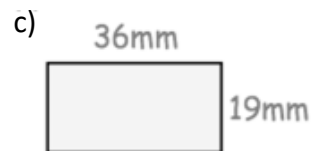
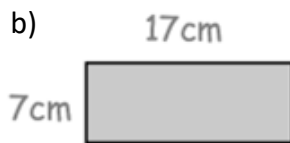
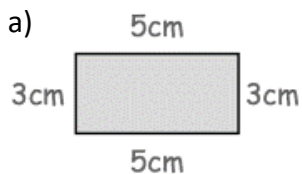


# N2 Addition, Subtraction and their Applications

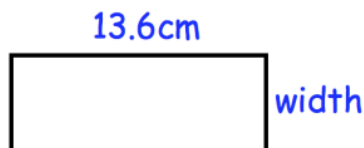
## End of Booklet Follow Up Questions

### Section K

Work out the perimeters of each of these rectangles and parallelograms:



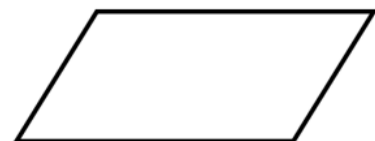
- j) The length of a rectangle is 13.6 cm  
The perimeter of the rectangle is 37.8cm



Calculate the width of the rectangle.



- k) The perimeter of a parallelogram is 17cm.  
The length of each long side is 5cm.



Work out the length of each short side.



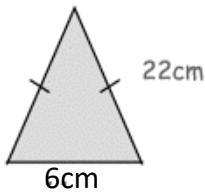
# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

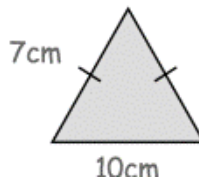
### Section L

Work out the perimeters of each of these isosceles triangles and isosceles trapeziums:

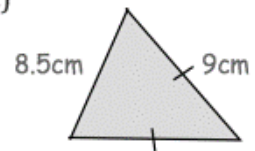
(a)



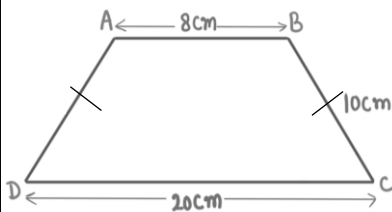
(b)



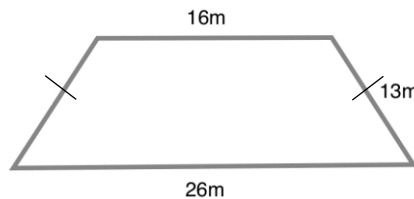
(c)



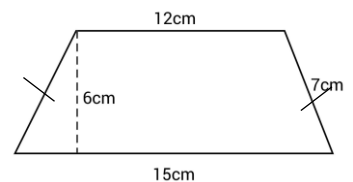
d)



e)



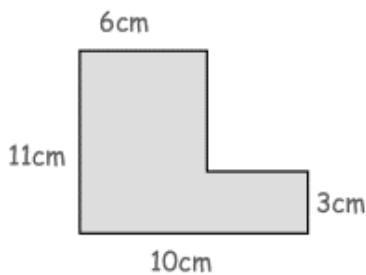
f)



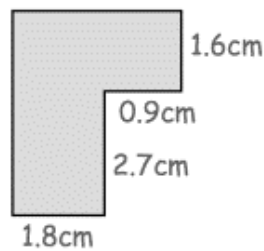
### Section M

Work out the perimeters of each of these compound shapes:

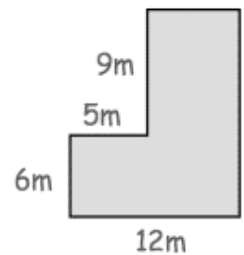
(a)



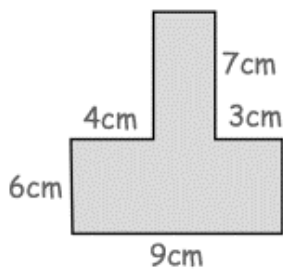
(b)



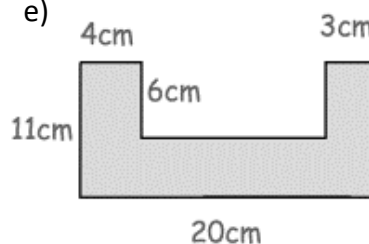
(c)



d)



e)



# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

### Section N

a) 80 students visited a library across three days. Complete the two-way table:

	Monday	Tuesday	Wednesday	Total
Year 7			13	38
Year 8	14			
Total		33	26	80

b) A cinema records information about 360 customers that visited over the weekend. Complete the two-way table:

Day	Adults	Children	Total
Saturday		115	212
Sunday			
Total	143		360

Here is a bus timetable. Calculate how long it takes to:

Harton	1005	1045	1130
Bridge	1024	1106	1147
Aville	1051	1133	1205
Ware	1117	1202	1233

c) Get from Bridge to Arville on the 1024 bus

d) Get from Bridge to Ware on the 1106 bus

e) Get from Harton to Ware on the 1130 bus

f) Get from Harton to Aville on the 1045 bus

g) Get from Aville to Ware on the 1051 bus

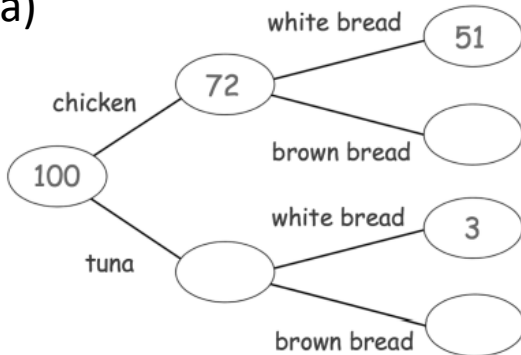
# N2 Addition, Subtraction and their Applications

## End of Booklet Follow Up Questions

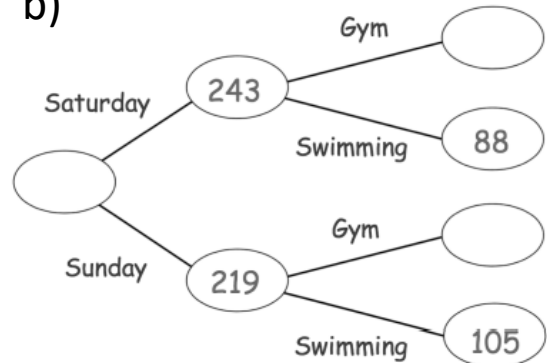
Section O

Complete the frequency trees:

a)

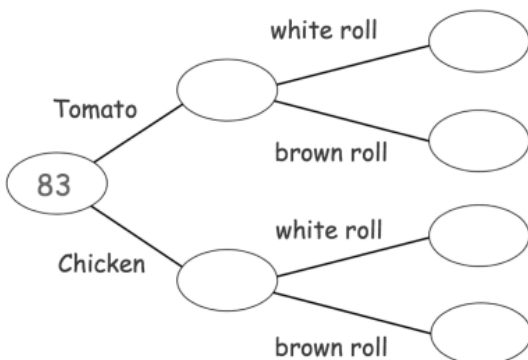


b)



c)

83 people are offered a choice of soup and roll.  
 9 of the 37 people who had tomato soup, had a brown roll.  
 31 people had chicken soup and a white roll.



d)

50 children audition for the school play.  
 18 of the children are boys.  
 15 children were given a role in the play.  
 8 girls were given a role in the play.

