Benjamin Britten Academy of Music and Mathematics

MATHEMATICS HOMEWORK BOOKLET

Year 7 Book C

AUTUMN TERM

NAME:

CONTENTS

WEEK	HOMEWORK TITLE
1	NUMERACY
2	ODD AND EVEN
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9	ANALOGUE CLOCK
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12	NUMERACY
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14	MATHSWATCH

How does it work?

- One homework will be set a week
- The set and due date for each homework will be written on this page
- Some homework will need completing on this booklet, others on the internet
- If you need help logging onto a website, you need to see your class teacher
- If you need help with the homework task, you must speak to your teacher before the due date

Mathswatch log in details:

Below are the log in instructions you will need in order to access and complete some of the homework tasks in this booklet.

Username—firstnamelastname@benjamin

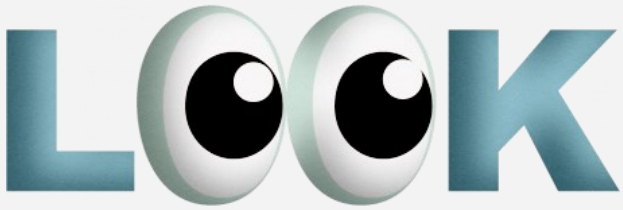
Password—your DOB (format: monthDYYYY)

Completing your homework

All homework tasks need to be completed in this booklet or on a specific website.

There are also **answers** for all booklet tasks at the back of the booklet. Part of your homework task each week is to **mark your work**. Make sure you mark all your answers in another colour pen, making any corrections if you need to.

Remember - if you need help, you must speak to your teacher **before** the due date.



If you see the logo above next to a task, you can type the clip number into Mathswatch for extra help!

Watch the video and make notes, then try the homework task again. If you still need help, then speak to your maths teacher at school.

HOMEWORK 1: NUMERACY

MENTAL STRATEGIES - do these in your head

TIMESTABLES – do these in your head

×	3	5	2	4	6
4					
2					
6					
3					
5					

Literacy challenge — Missing letters!

Below are 3 keywords in maths, but some of the letters are missing. Can you fill the blanks?

A _ D _ T _ O N

M _ L T I _ L _ C A T _ O _

A R I _ H _ E T I _

Q	Question	Answer
1	2 + 3	
2	89 + 11	
3	What is half of 6?	
4	125 – 10	
5	177 + □ = 270	
6	53 = 23 + □	
7	805 – 804	
8	4 × 1 = 4, so 4 ÷ 4 = □	
9	Write 20:12 in 12 hour clock format	
10	9:37 pm is how many minutes after 9:08 pm?	
	Total out of 10	

Q	Question	Answer
1	2 × 9 = □	
2	24 ÷ 3 = □	
3	10 × □ = 80	
4	6 ÷ □ = 3	
5	1 × 2 = □	
6	28 ÷ 7 = □	
7	□ × 6 = 54	
8	□ ÷ 2 = 5	
9	3 × 9 = □	
10	4 ÷ 4 = □	
	Total out of 10	

LOOK

N15a, N16, N7b, N10

Q	Question	Answer
1	61 × 31	
2	657 – 382	
3	7.2 × 94.2	
4	0.7 as a fraction	
5	46.15 + 5.08	
6	(-40) ÷ (-4)	
7	If a = 4 b = 3 and c = 1, what is the value of $3a - b^2$?	
8	3 – (-5)	
9	What is the highest common factor of 12 and 4?	
10	What is the value of 13 squared?	
	Total out of 10	

Problem solving!

Apply your core skills to the challenge question below...

LOOK

N3

Two digits

Here are four digit cards.

1	2	3	4

Show all the different **two-digit numbers** that are **bigger than 30** that you can make using these cards.

You can use the cards more than once.

HOMEWORK 2: ODD AND EVEN

An odd number can end in 1, 3, 5, 7 or 9.

An even number can end in 0, 2, 4, 6 or 8.

Circle all the even numbers in the grid below.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Write a sentence describing what you have found.

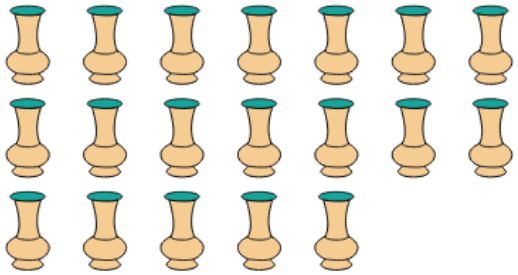
_____

All even numbers are in the _____ times table. Therefore, all even numbers are divisible by _____.

Problem solving!

Apply your core skills to the challenge questions below...

Count the pictures. Classify the total as odd or even.

1) 

_____ vases

odd / even

2) 

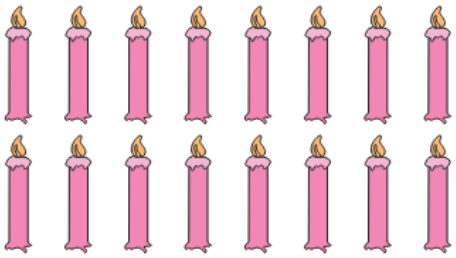
_____ nail polishes

odd / even

3) 

_____ strawberries

odd / even

4) 

_____ candles

odd / even

CHALLENGE 1

- *I am less than 900.*
- *I am a 3-digit number.*
- *I am odd.*
- *The total of all my digits is also odd.*

Who am I? _____

A	B	C	D
509	280	465	258
E	F	G	H
87	833	912	314

CHALLENGE 2

- *I am greater than 250.*
- *My hundreds digit is less than 8.*
- *I am an even number.*
- *My smallest digit is my tens digit.*

Who am I? _____

A	B	C	D
509	280	465	258
E	F	G	H
87	833	912	314

HOMEWORK 3: THE SIEVE OF ERATOSTHENES

You will need to complete some research for this homework task.

By using the internet or reading a book, try and find the answers to the questions below:

1) Who was Eratosthenes?

_____

_____

2) When and where was he born, and how old was he when he died?

_____

_____

3) Eratosthenes became the chief librarian...where?

_____

_____

4) Eratosthenes was the first person to do what?

_____

_____

5) What two nicknames was Eratosthenes given?

_____

_____

6) We know Eratosthenes for his 'sieve', which helps people to identify prime numbers. What is the definition for a prime number?

_____

_____

Using the Sieve of Eratosthenes

1) Circle the first number (number 2). This number is **prime.**

2) Cross out all the multiples of 2 on your grid. You would cross out the numbers 4, 6, 8, 10, 12, ...

These numbers have been 'sieved' out.

3) Circle the next number on your list that has not been crossed off yet– this should be the number 3. This number is **prime.**

4) Cross out all the multiples of 3 on your grid (6, 9, 12, 15…)

5) Circle the next number on your list that has not been crossed off yet– this should be the number 5. This number is **prime.**

6) Cross out all the multiples of 5 on your grid (5, 10, 15, 20…)

7) Circle the next number on your list that has not been crossed off yet– this should be the number 7. This number is **prime.**

8) Cross out all the multiples of 7 on your grid (7, 14, 21, 28…)

Circle all the numbers not crossed off yet—these are all PRIME!

	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

HOMEWORK 4: MATHSWATCH

For this week's homework, your teacher will set you a task to complete on the website Mathswatch. The task will be based on the content you have learnt over the past half term in your maths lessons. You can use the space on the next page to do any working out if you need to.

Below are the log in instructions you will need in order to access and complete this homework task.

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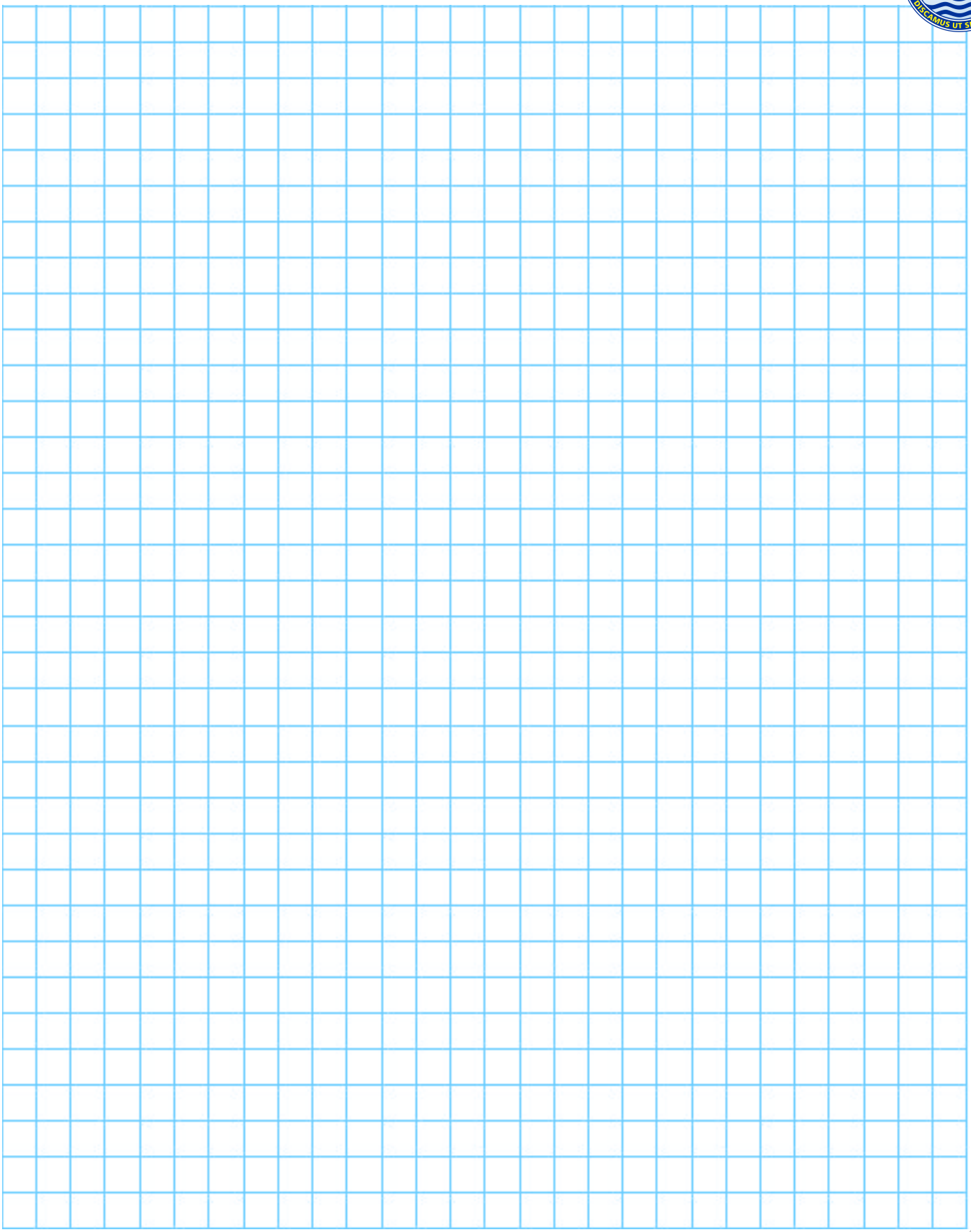
If you need a printed copy of this homework task, make sure you speak to your class teacher before the due date and they will print a copy for you to complete.

Additional working out space:



HOMEWORK 5: NUMERACY

MENTAL STRATEGIES - do these in your head

TIMESTABLES – do these in your head

×	2	4	6	3	5
4					
3					
5					
2					
6					

Literacy challenge: Missing vowels!

Below are 3 keywords in maths, but the vowels are missing. Can you fill the blanks?

D _ V _ S _ _ N

C _ LC _ L _ T _ _ N

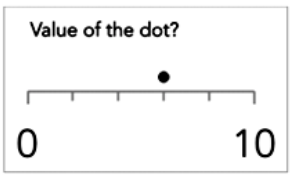
_ P _ R _ T _ _ NS

Q	Question	Answer
1	□ + 6 = 10	
2	What is double 5?	
3	Halve 63	
4	26 + 30	
5	98 + 99	
6	22 + 10 = 22 + 8 + □	
7	3 + 223	
8	20 + 61 = 20 + 60 + □	
9	□ + 3 = 5	
10	□ + 2 = 20	
	Total out of 10	

Q	Question	Answer
1	9 × 5 = □	
2	10 ÷ 2 = □	
3	8 × □ = 8	
4	16 ÷ □ = 4	
5	8 × 4 = □	
6	15 ÷ 3 = □	
7	□ × 2 = 12	
8	□ ÷ 7 = 1	
9	5 × 8 = □	
10	14 ÷ 2 = □	
	Total out of 10	

LOOK

N11, N23c, N25

Q	Question	Answer
1	3905 ÷ 5	
2	7 + 25 ÷ 5	
3	2.013 ÷ 0.1	
4	2.26 × 1000	
5	34 – 0.74	
6	Write 56/72 in its simplest form	
7	Difference between 4 and -4	
8		
9	What is the lowest common multiple of 4 and 5?	
10	What is the cube root of 27?	
	Total out of 10	

HW 5

Problem solving!

Apply your core skills to the challenge questions below...

Match the words on the left with their partners on the right. Record your matching pairs in the table below.

A Four Thousand and Eighty Two	G Eighty Two Thousand and Four
B Four Hundred and Eight Thousand	H Eight Hundred and Four Thousand
C Forty Eight Thousand and Two	I Forty Thousand, Eight Hundred
D Fourteen thousand, eight hundred and twenty	J Eight Thousand and Forty
E Four Hundred Thousand and Eighty	K Eighteen Thousand and Four
F Forty Thousand and Eight	L Eight Hundred and Forty Thousand, Eight Hundred

M 48,002	N 408,000
O 8,040	P 400,080
Q 40,800	R 4,082
S 840,800	T 40,008
U 804,000	V 82,004
W 14,820	X 18,004

A	B	C	D	E	F	G	H	I	J	K	L

Working out

Write the missing numbers.

$46 + \square = 73$

$55 - \square = 29$

LOOK

N1a

HOMEWORK 6: ADD AND SUBTRACT

MENTAL STRATEGIES -
do these in your head

1).	13 + 4 = ____	2).	20 - 10 = ____	3).	6 + 6 = ____
4).	16 - 5 = ____	5).	32 - 29 = ____	6).	11 + 6 = ____
7).	5 + 25 = ____	8).	37 - 10 = ____	9).	16 - 5 = ____
10).	11 + 23 = ____	11).	13 + 5 = ____	12).	19 - 6 = ____
13).	7 + 5 = ____	14).	18 - 12 = ____	15).	44 - 38 = ____
16).	12 + 12 = ____	17).	20 - 9 = ____	18).	53 - 10 = ____
19).	95 - 91 = ____	20).	57 - 53 = ____	21).	25 + 12 = ____
22).	19 - 11 = ____	23).	39 - 33 = ____	24).	9 + 7 = ____

ADDITION

1. 2 3 + 6 8 = ___

2. 4 4 + 5 3 = ___

3. 2 7 + 5 4 = ___

4. 4 2 + 3 8 = ___

1. 2 8 0 + 3 3 5 = ____

2. 3 4 2 + 9 5 3 = ____

3. 6 1 3 + 5 1 5 = ____

4. 4 2 0 + 5 9 = ____

SUBTRACTION

1. 5 6 − 3 6 = ___

2. 7 5 − 2 7 = ___

3. 6 2 − 5 8 = ___

4. 9 2 − 8 5 = ___

1. 5 7 7 − 3 1 1 = ____

2. 7 9 1 − 4 6 7 = ____

3. 9 7 1 − 7 8 0 = ____

4. 9 2 4 − 6 5 7 = ____

Problem solving!

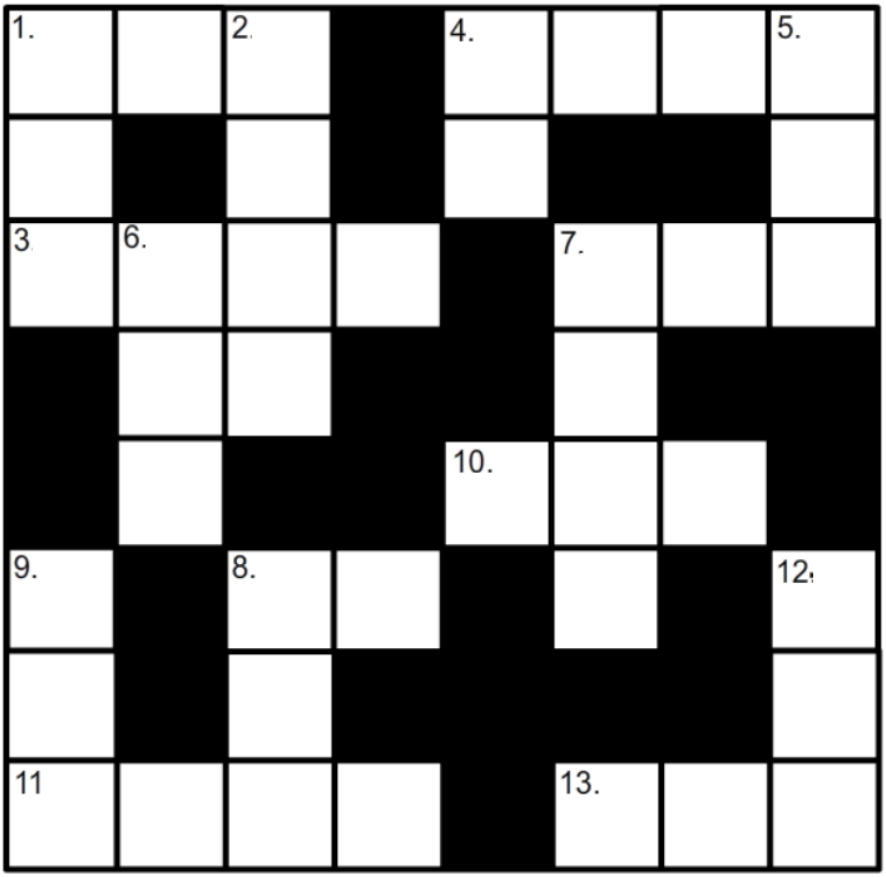
Apply your core skills to the challenge questions below...

across

1) 32 + 125
3) 896 + 2631
4) 4977 + 330
7) 1012 - 16
8) 1028 - 970
10) 2040 - 1231
11) 142 + 961
13) 1218 - 900

down

1) 98 + 15
2) 283 + 6739
4) 153 - 97
5) 654 + 122
6)1000 - 469
7) 10000 - 299
8) 613 - 63
9) 98 + 273
12) 1223 - 515



You **MUST** show your working out below.

LOOK
N13, N14

HOMEWORK 7: MATHSWATCH

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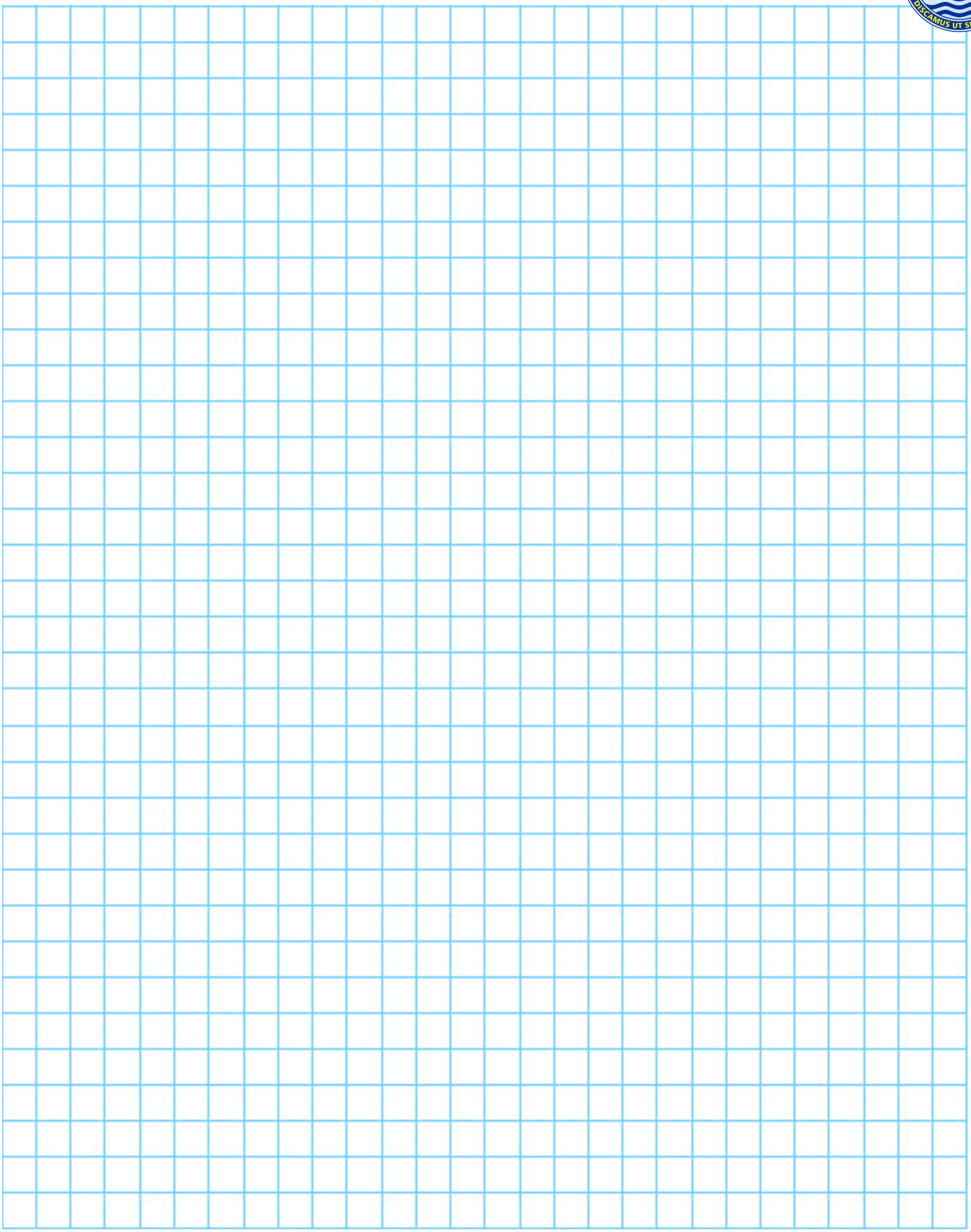
Additional working out space:



HOMEWORK 8: NUMERACY

Literacy challenge: Missing vowels!

Below are 3 keywords in maths, but the vowels are missing. Can you fill the blanks?

PL _ C _ V _ L _ _

TH _ _ S _ ND

S _ BTR _ CT _ _ N

MENTAL STRATEGIES - do these in your head

TIMESTABLES – do these in your head

×	5	3	6	4	2
5					
3					
2					
6					
4					

Q	Question	Answer
1	1 + 4	
2	19 + 81	
3	Halve 2	
4	42 – 10	
5	124 + □ = 200	
6	84 = 34 + □	
7	925 – 920	
8	7 × 8 = 56, so 56 ÷ 7 = □	
9	Write 1:58 pm in 24 hour clock format	
10	6:59 am is how many minutes after 6:19 am?	
	Total out of 10	

Q	Question	Answer
1	2 × 6 = □	
2	8 ÷ 2 = □	
3	1 × □ = 10	
4	10 ÷ □ = 1	
5	9 × 7 = □	
6	5 ÷ 5 = □	
7	□ × 8 = 72	
8	□ ÷ 8 = 3	
9	2 × 4 = □	
10	18 ÷ 6 = □	
	Total out of 10	

LOOK

N3, N4, N5, N6

Q	Question	Answer
1	3 × 991	
2	16182 – 8764	
3	2.3 × 7.17	
4	0.45 as a fraction	
5	22.17 + 8.31	
6	(-48) ÷ 6	
7	If a = 6 b = 3 and c = 10, what is the value of bc / a ?	
8	(-10) – (-5)	
9	What is the highest common factor of 15 and 27?	
10	What is the value of 7 squared?	
	Total out of 10	

Problem solving!

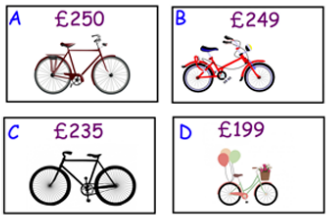
Apply your core skills to the challenge question below...

Here are the heights of five hills.

Altmore	538m
Heathmount	551m
Slemish	499m
Donard	542m
Cley Hill	517m

List the hills in order of size, starting with the smallest.

.....



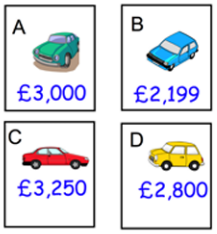
Put these bicycles in order of price, starting with the **highest price**

highest lowest

Write these prices in order, starting with the smallest

£6.30 £3.60 63p £0.36 £3.06

smallest largest

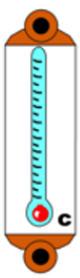


Put these cars in order of price, starting with the **lowest price**

lowest highest

Arrange these temperatures in order, from lowest to highest

0°C −20°C 6°C 17°C −13°C



lowest highest

LOOK

N2a, N2b

HOMEWORK 9: ANALOGUE CLOCK

learn by heart

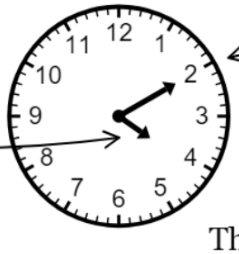
The hour hand is the shorter hand

The minute hand is longer

The hour is split into 5 minute intervals.
The 1 represents 1 lot of 5 minutes after the hour

15 minutes past the hour (at 3) is pronounced 'quarter past'

30 minutes past the hour (at 6) is pronounced 'half past'

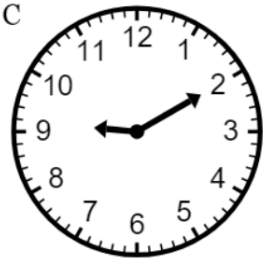


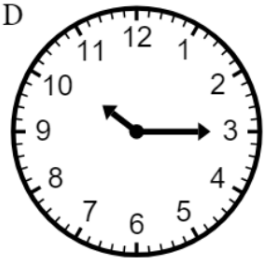
The minute hand is at 2, this means $2 \times 5 = 10$ minutes past the hour, so 4.10

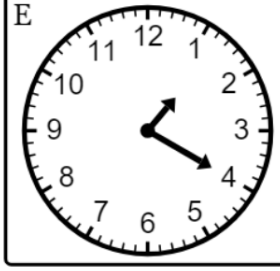
1. Write the correct time under each clock

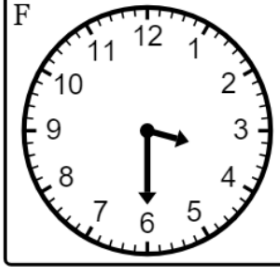
A 

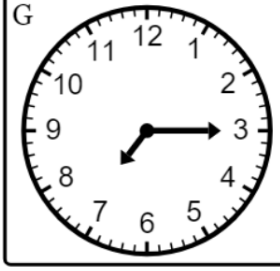
B 

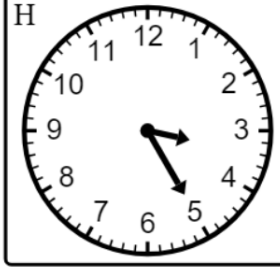
C 

D 

E 

F 

G 

H 

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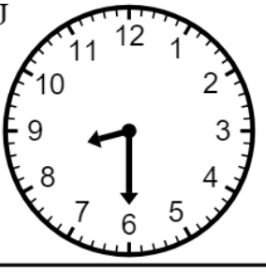
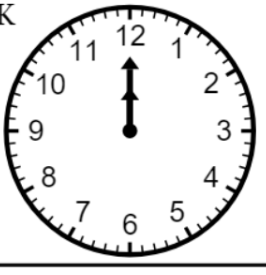
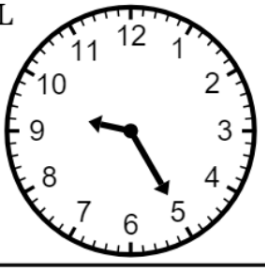
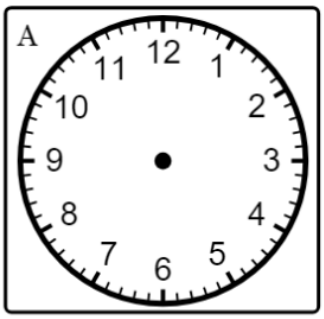
J 

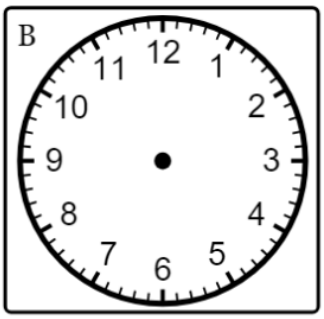
K 

L 

2. On each clock draw the hands in the correct place to show the time given

A 

11.05

B 

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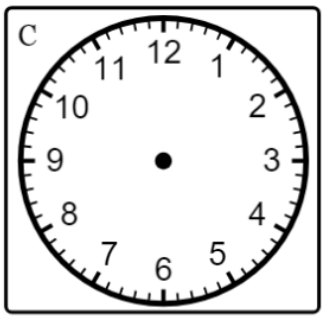
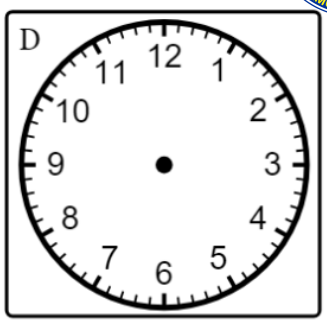
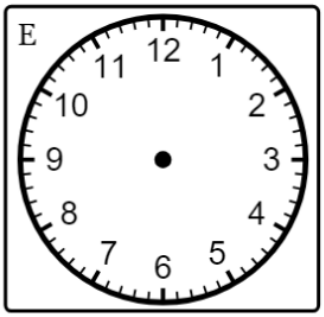
C 

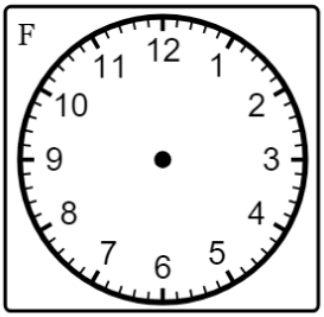
9.20

D 

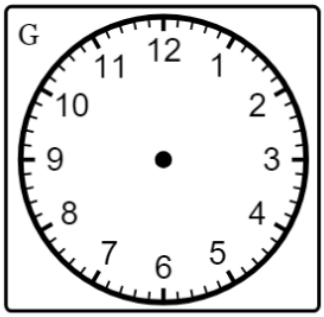
6.30

E 

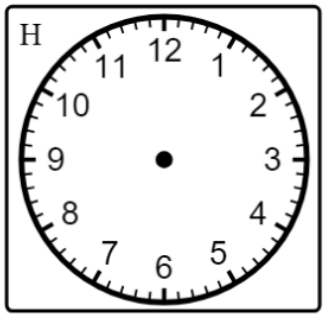
Twenty past eight

F 

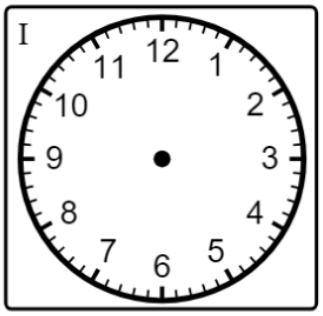
Twenty five past seven

G 

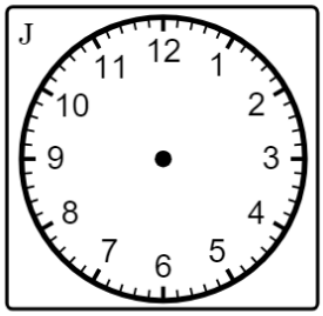
Half past one

H 

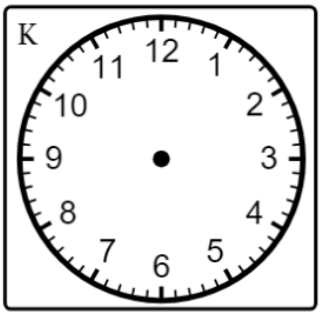
Ten past twelve

I 

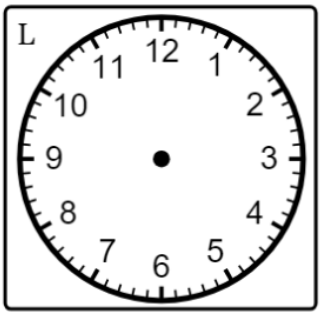
Half past two

J 

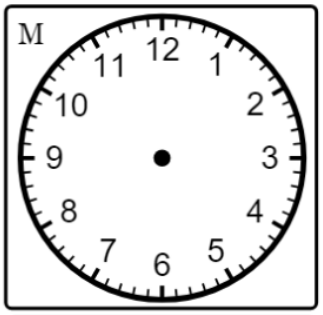
Five o' clock

K 

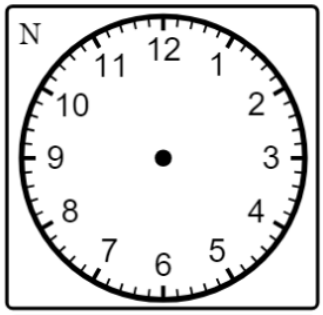
Quarter past six

L 

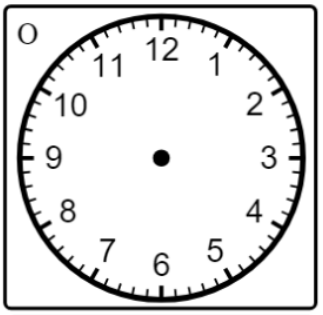
Twenty five past nine

M 

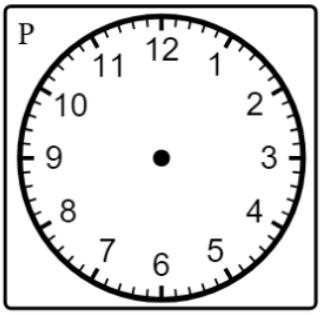
2.06

N 

8.29

O 

10.01

P 

3.16

HOMEWORK 10: RESEARCH TASK

Roman Numerals

Many clock faces still use roman numerals like IV and XI.

At the end of a film, the year it was made is often given using roman numerals. For example. MCMLXXX means 1980.

I	one	XI	eleven
II	two	XII	twelve
III	three	XX	twenty
IV	four (one before five)	XXX	thirty
V	five	XL	forty (ten before fifty)
VI	six	L	fifty
VII	seven	LX	sixty
VIII	eight	C	hundred
IX	nine (one before ten)	CM	nine hundred
X	ten	M	thousand

1 Write down the value of each of the numbers written below in roman numerals.

(a) VII (b) XIII (c) XVI (d) XXVII

(e) XVIII (f) XIX (g) XLV (h) LXXII

2 Write these numbers in roman numerals.

(a) 8 (b) 17 (c) 22

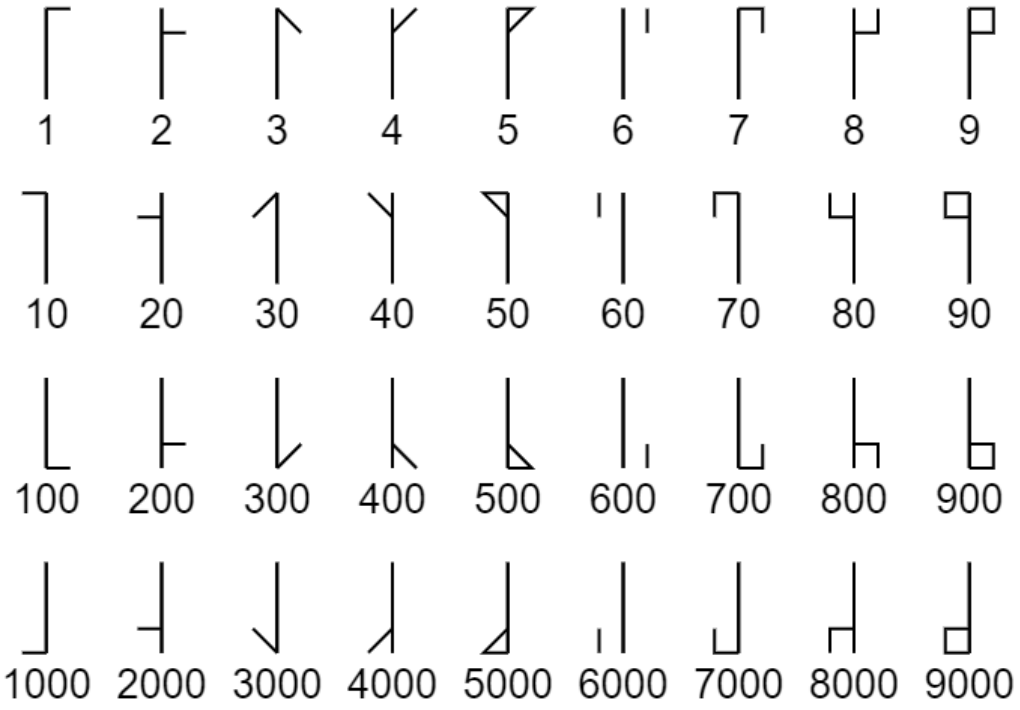
(d) 58 (e) 39 (f) 84

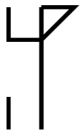
(g) 78 (h) 123 (i) 339

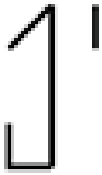
(j) 1265 (k) 1066 (l) 3194

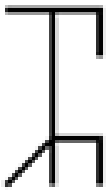
Cistercian Numerals!

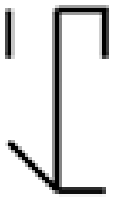
Using the key below, see if you can work out what numbers these Cistercian numerals represent.

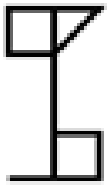


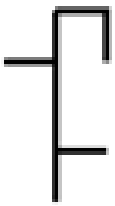
For example  = 6085

 = 70__

 = _8__

 =

 = _9_5

 = 0___

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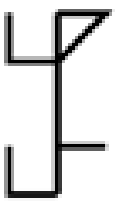
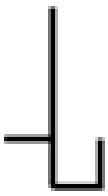
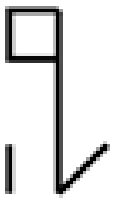
 = __8_

 =

 =

HOMEWORK 11: MATHSWATCH

For this week's homework, your teacher will set you a task to complete on the website Mathswatch. The task will be based on the content you have learnt over the past half term in your maths lessons. You can use the space on the next page to do any working out if you need to.

Below are the log in instructions you will need in order to access and complete this homework task.

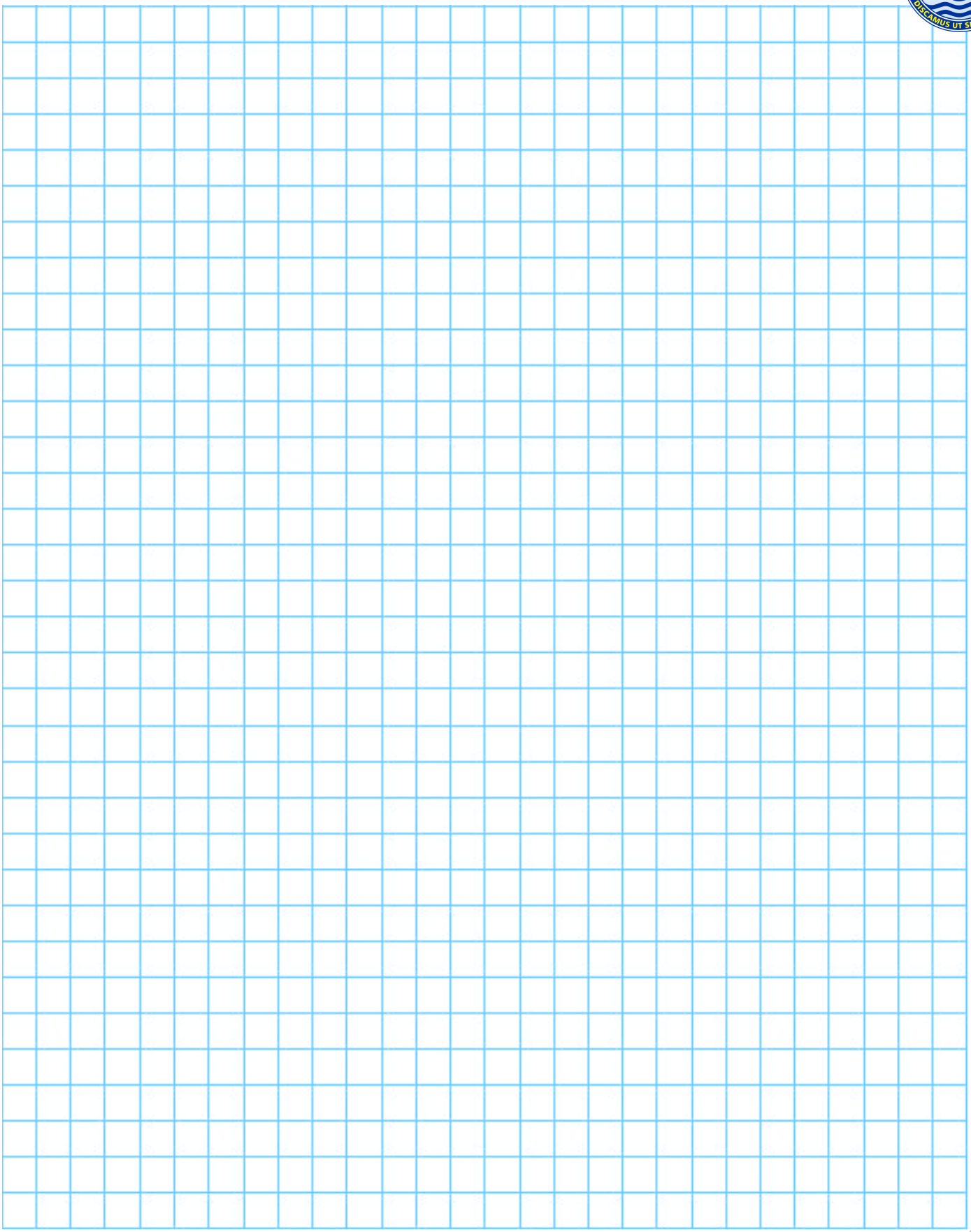
If you have any issues logging in, you must speak to your class teacher as soon as possible.

Username— firstnamelastname@benjamin

Password— your DOB (format: monthDYYYY)

If you need a printed copy of this homework task, make sure you speak to your class teacher before the due date and they will print a copy for you to complete.

Additional working out space:



HOMEWORK 12: NUMERACY

MENTAL STRATEGIES - do these in your head

TIMESTABLES – do these in your head

×	4	3	2	5	6
6					
2					
4					
5					
3					

Literacy challenge – Missing vowels!

Below are 3 keywords in maths, but the vowels are missing. Can you fill the blanks?

S Q _ _ R _

D _ C _ M _ L S

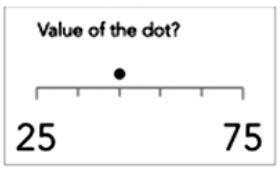
T _ M _ S T _ B L _ S

Q	Question	Answer
1	□ + 5 = 10	
2	Double 3	
3	Halve 35	
4	173 + 50	
5	47 + 44	
6	32 + 10 = 32 + 8 + □	
7	1 + 566	
8	40 + 68 = 40 + 60 + □	
9	3 + 2	
10	4 + □ = 20	
	Total out of 10	

Q	Question	Answer
1	6 × 3 = □	
2	14 ÷ 2 = □	
3	6 × □ = 36	
4	18 ÷ □ = 6	
5	9 × 3 = □	
6	32 ÷ 8 = □	
7	□ × 4 = 24	
8	□ ÷ 10 = 4	
9	4 × 2 = □	
10	30 ÷ 3 = □	
	Total out of 10	

LOOK

N23c, N11, N25, N19b

Q	Question	Answer
1	2688 ÷ 3	
2	8 + 8 ÷ 2	
3	245.52 ÷ 4	
4	6.14 × 10	
5	16.15 – 5.11	
6	Write 63/70 in its simplest form	
7	Which is the lowest number, 3 or -9?	
8		
9	List the first 4 multiples of 14	
10	What is the value of (-4) cubed?	
	Total out of 10	

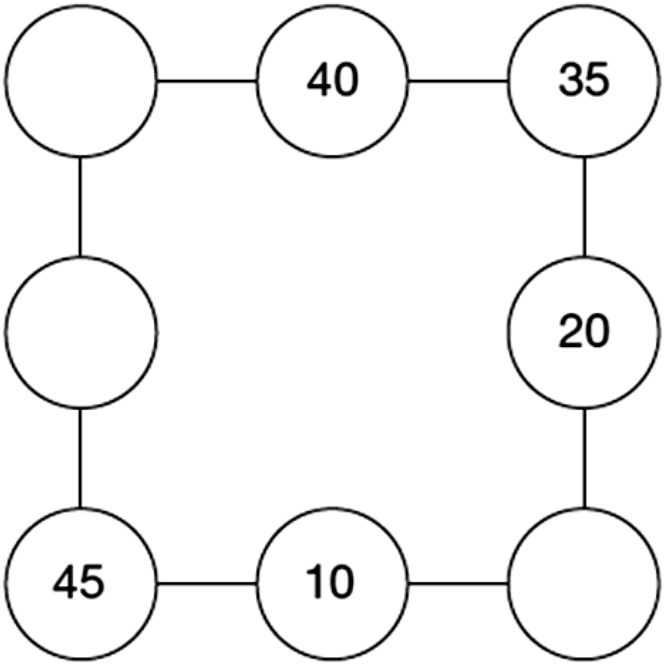
Problem solving!

Apply your core skills to the challenge question below...

Circle totals

In the diagram, three circles in a straight line must **add up to 100**

Write in the missing numbers.



Puzzle 7

What is three thousand four hundred and six in figures?

Puzzle 8

Write 1 million and eighty three in figures.

Puzzle 9

Complete these statements using the symbols =, >, <

0.40		0.400
0.35		0.300
0.2		0.25
1.5		1.05
1.8		1.80
0.01		0.1
0.99		0.999

HOMEWORK 13: PERIMETER

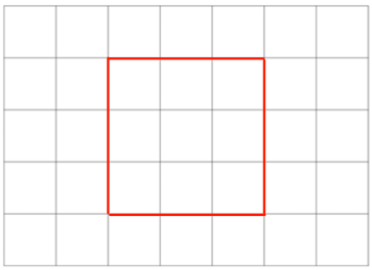
The perimeter is the total distance around the outside of a 2D (flat) shape.

To calculate it, we add the lengths of all the sides together.

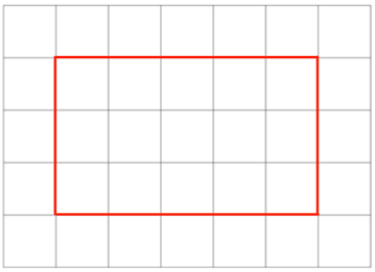
For the questions below, you can count the edges of the shapes.

Question 1: The following shapes are drawn on centimetre-squared paper.
Find the perimeter of each shape.

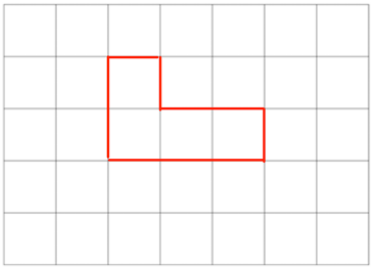
(a)



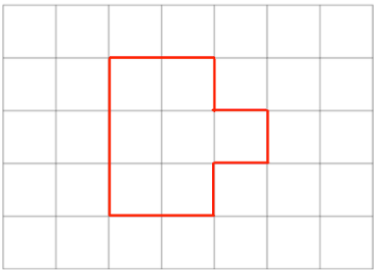
(b)



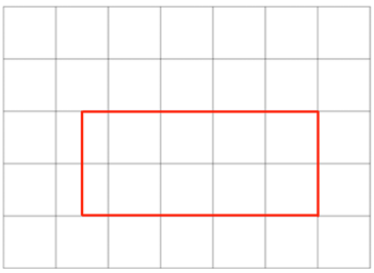
(c)



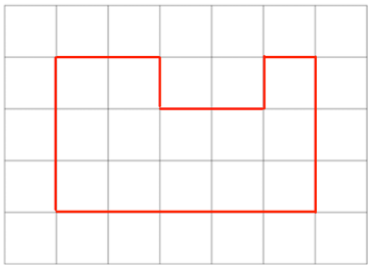
(d)



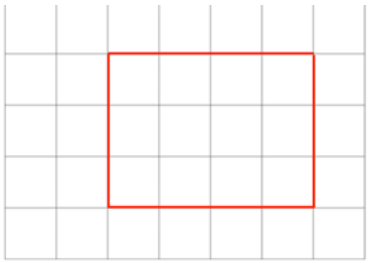
(e)



(f)



Jasmine says the perimeter of this shape is 12cm.
Explain her mistake.



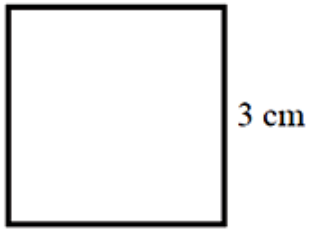
Problem solving!

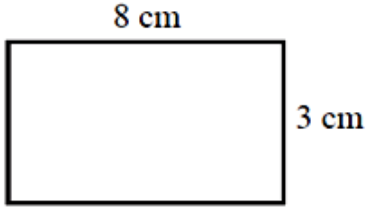
Apply your core skills to the challenge questions below...

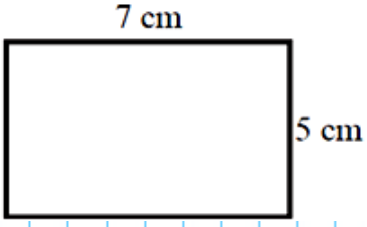
LOOK

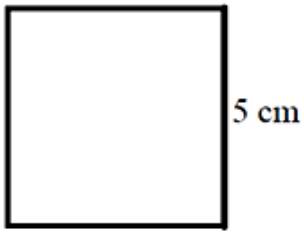
G9

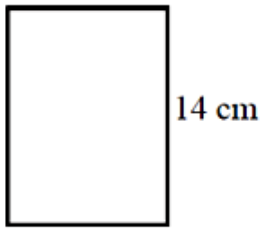
Find the perimeter of the following rectangles and squares.
Remember to give the units for each answer. (Diagrams are not to scale).

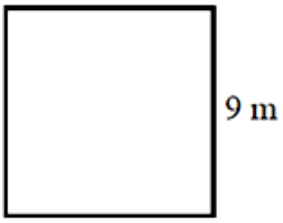
1). 

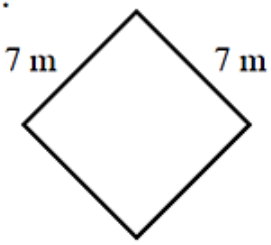
2). 

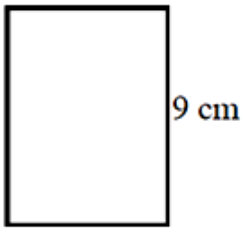
3). 

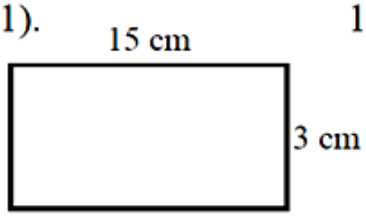
4). 

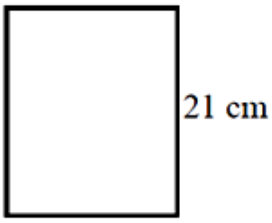
6). 

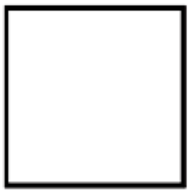
7). 

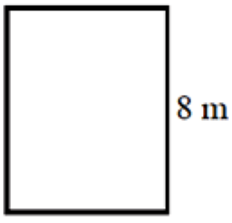
8). 

9). 

11). 

12). 

13). 

14). 

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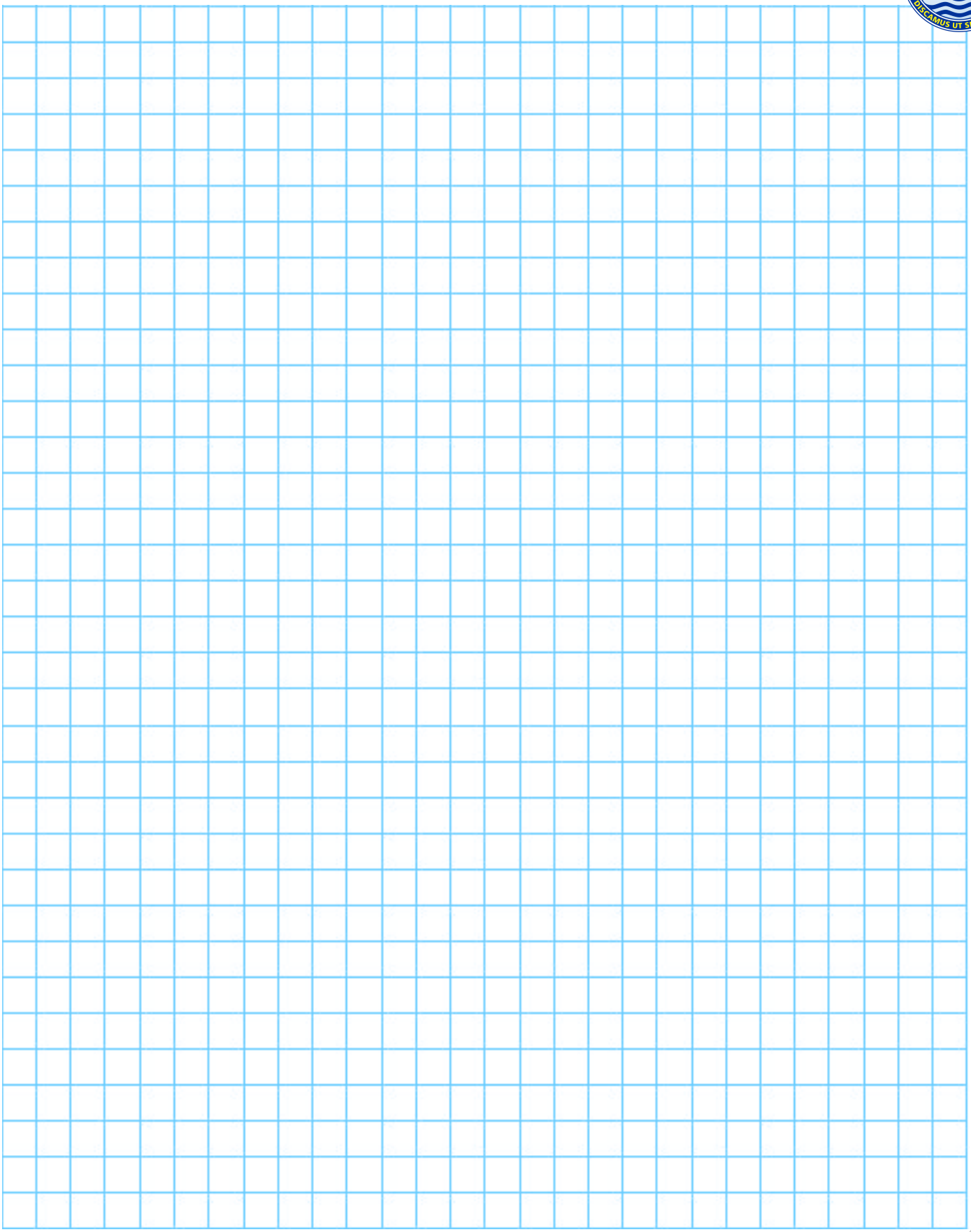


ANSWERS—WEEK 1

Q	Question	Answer
1	2 + 3	5
2	89 + 11	100
3	What is half of 6?	3
4	125 − 10	115
5	177 + □ = 270	93
6	53 = 23 + □	30
7	805 − 804	1
8	4 × 1 = 4, so 4 ÷ 4 = □	1
9	Write 20:12 in 12 hour clock format	8:12 pm
10	9:37 pm is how many minutes after 9:08 pm?	29

Q	Question	Answer
1	2 × 9 = □	18
2	24 ÷ 3 = □	8
3	10 × □ = 80	8
4	6 ÷ □ = 3	2
5	1 × 2 = □	2
6	28 ÷ 7 = □	4
7	□ × 6 = 54	9
8	□ ÷ 2 = 5	10
9	3 × 9 = □	27
10	4 ÷ 4 = □	1

Q	Question	Answer
1	61 × 31	1891
2	657 − 382	275
3	7.2 × 94.2	678.24
4	0.7 as a fraction	7/10
5	46.15 + 5.08	51.23
6	(−40) ÷ (−4)	10
7	If a = 4 b = 3 and c = 1, what is the value of $3a - b^2$?	3
8	3 − (−5)	8
9	What is the highest common factor of 12 and 4?	4
10	What is the value of 13 squared?	169

B1

B2

B3

Gives all six correct two-digit numbers with no errors,
ie

31, 32, 34, 41, 42, 43 in any order

2

Gives at least four correct two-digit numbers even if there are other errors
eg

- 32, 33, 34, 41, 42

1

! ***Number(s) given with digits repeated***
Condone
eg, for 2m accept
- *31, 32, 33, 34, 41, 42, 43, 44*

! ***Correct number(s) repeated***
Ignore
eg, for 2m accept
- *31, 32, 34, 31, 41, 42, 43*

[2]

×	3	5	2	4	6
4	12	20	8	16	24
2	6	10	4	8	12
6	18	30	12	24	36
3	9	15	6	12	18
5	15	25	10	20	30

Literacy challenge – Missing letters!

Below are 3 keywords in maths, but some of the letters are missing. Can you fill the blanks?

A D D I T I O N

M U L T I P L A C A T I O N

A R I T H M E T I C

ANSWERS—WEEK 2

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Even Numbers

All even numbers are in the two times table. Therefore, all even numbers are divisible by two .

Write a sentence describing what you have found.

CHALLENGE 1

- *I am less than 900.*
- *I am a 3-digit number.*
- *I am odd.*
- *The total of all my digits is also odd.*

Who am I? _____

A 509	B 280	C 465	D 258
E 87	F 833	G 912	H 314

CHALLENGE 2

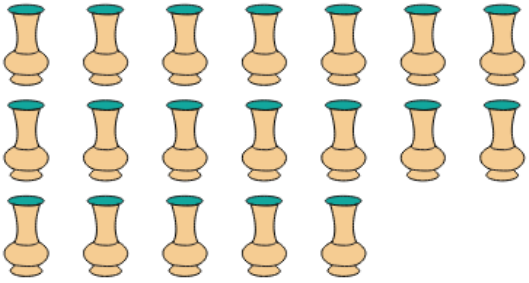
- *I am greater than 250.*
- *My hundreds digit is less than 8.*
- *I am an even number.*
- *My smallest digit is my tens digit.*

Who am I? _____

A 509	B 280	C 465	D 258
E 87	F 833	G 912	H 314

Count the pictures. Classify the total as odd or even.

1)



19 vases

odd / even

2)

27 nail polishes

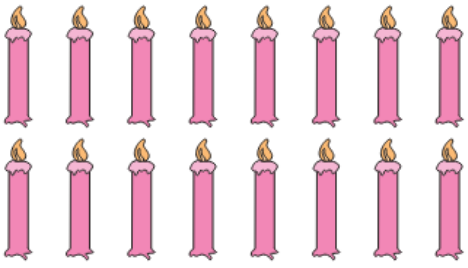
odd / even

3)

24 strawberries

odd / even

4)



16 candles

odd / even

ANSWERS—WEEK 3

1) Who was Eratosthenes?

Eratosthenes was a Greek mathematician and geographer.

2) When and where was he born, and how old was he when he died?

He was born 276 BC in Cyrene (North Africa—known today as Libya) and he died 194BC at 82 years old.

3) Eratosthenes became the chief librarian…where?

He became the chief librarian in the Great Library of Alexandria. This is located in Egypt and was one of the most significant libraries in the world.

4) Eratosthenes was the first person to do what?

He may have been the first person to use the word geography, invented the system of longitude and latitude, and made a map of the known world. Additionally, he designed a system for finding prime numbers.

5) What two nicknames was Eratosthenes given?

Pentathlos and Beta — a man of many talents.

6) We know Eratosthenes for his 'sieve', which helps people to identify prime numbers. What is the definition for a prime number?

A prime number is a whole number that has **exactly** two factors, 1 and itself.

Meaning that it is only divisible by 1 and itself.

~~1~~	2	3	~~4~~	5	~~6~~	7	~~8~~	~~9~~	~~10~~
11	~~12~~	13	~~14~~	~~15~~	~~16~~	17	~~18~~	19	~~20~~
~~21~~	~~22~~	23	~~24~~	~~25~~	~~26~~	~~27~~	~~28~~	29	~~30~~
31	~~32~~	~~33~~	~~34~~	~~35~~	~~36~~	37	~~38~~	~~39~~	~~40~~
41	~~42~~	43	~~44~~	~~45~~	~~46~~	47	~~48~~	~~49~~	~~50~~
~~51~~	~~52~~	53	~~54~~	~~55~~	~~56~~	~~57~~	~~58~~	59	~~60~~
61	~~62~~	~~63~~	~~64~~	~~65~~	~~66~~	67	~~68~~	~~69~~	~~70~~
71	~~72~~	73	~~74~~	~~75~~	~~76~~	~~77~~	~~78~~	79	~~80~~
~~81~~	~~82~~	83	~~84~~	~~85~~	~~86~~	~~87~~	~~88~~	89	~~90~~
~~91~~	~~92~~	~~93~~	~~94~~	~~95~~	~~96~~	97	~~98~~	~~99~~	~~100~~

Q	Question	Answer
1	□ + 6 = 10	4
2	What is double 5?	10
3	Halve 63	31.5
4	26 + 30	56
5	98 + 99	197
6	22 + 10 = 22 + 8 + □	2
7	3 + 223	226
8	20 + 61 = 20 + 60 + □	1
9	□ + 3 = 5	2
10	□ + 2 = 20	18

Q	Question	Answer
1	9 × 5 = □	45
2	10 ÷ 2 = □	5
3	8 × □ = 8	1
4	16 ÷ □ = 4	4
5	8 × 4 = □	32
6	15 ÷ 3 = □	5
7	□ × 2 = 12	6
8	□ ÷ 7 = 1	7
9	5 × 8 = □	40
10	14 ÷ 2 = □	7

Q	Question	Answer	
1	3905 ÷ 5	781	
2	7 + 25 ÷ 5	12	
3	2.013 ÷ 0.1	20.13	
4	2.26 × 1000	2260	
5	34 − 0.74	33.26	
6	Write 56/72 in its simplest form	7/9	
7	Difference between 4 and −4	8	B1
8	See number line	6	
9	What is the lowest common multiple of 4 and 5?	20	B2
10	What is the cube root of 27?	3	B3

Literacy challenge: Missing vowels!

Below are 3 keywords in maths, but the vowels are missing. Can you fill the blanks?

D I V I S I O N

C A L C U L A T I O N

O P E R A T I O N S

A	B	C	D	E	F	G	H	I	J	K	L
R	N	M	W	P	T	V	U	Q	O	X	S

×	2	4	6	3	5
6	12	24	36	18	30
2	4	8	12	6	10
5	10	20	30	15	25
3	6	12	18	9	15
4	8	16	24	12	20

ANSWERS—WEEK 6

1. 5 7 7 − 3 1 1 = 2 6 6

2. 7 9 1 − 4 6 7 = 3 2 4

3. 9 7 1 − 7 8 0 = 1 9 1

4. 9 2 4 − 6 5 7 = 2 6 7

1. 5 6 − 3 6 = 2 0

2. 7 5 − 2 7 = 4 8

3. 6 2 − 5 8 = 0 4

4. 9 2 − 8 5 = 0 7

1. 2 8 0 + 3 3 5 = 6 1 5

2. 3 4 2 + 9 5 3 = 1 2 9 5

3. 6 1 3 + 5 1 5 = 1 1 2 8

4. 4 2 0 + 5 9 = 4 7 9

1. 2 3 + 6 8 = 9 1

2. 4 4 + 5 3 = 9 7

3. 2 7 + 5 4 = 8 1

4. 4 2 + 3 8 = 8 0

1). 17 2). 10 3). 12 4). 11 5). 3 6). 17 7). 30
8). 27 9). 11 10). 34 11). 18 12). 13 13). 12 14). 6
15). 6 16). 24 17). 11 18). 43 19). 4 20). 4 21). 37
22). 8 23). 6 24). 16

1. 1	5	2. 7		4. 5	3	0	5. 7
1		0		6			7
3. 3	6. 5	2	7	7. 9	9	9	6
	3	2		7			
	1			10. 8	0	9	
9. 3		8. 5	8	1			12. 7
7		5					0
11. 1	1	0	3	13. 3	1	8	

ANSWERS—WEEK 8

×	5	3	6	4	2
5	25	15	30	20	10
3	15	9	18	12	6
2	10	6	12	8	4
6	30	18	36	24	12
4	20	12	24	16	8

Q	Question	Answer
1	1 + 4	5
2	19 + 81	100
3	Halve 2	1
4	42 − 10	32
5	124 + □ = 200	76
6	84 = 34 + □	50
7	925 − 920	5
8	7 × 8 = 56, so 56 ÷ 7 = □	8
9	Write 1:58 pm in 24 hour clock format	13:58
10	6:59 am is how many minutes after 6:19 am?	40

Q	Question	Answer
1	2 × 6 = □	12
2	8 ÷ 2 = □	4
3	1 × □ = 10	10
4	10 ÷ □ = 1	10
5	9 × 7 = □	63
6	5 ÷ 5 = □	1
7	□ × 8 = 72	9
8	□ ÷ 8 = 3	24
9	2 × 4 = □	8
10	18 ÷ 6 = □	3

Q	Question	Answer
1	3 × 991	2973
2	16182 − 8764	7418
3	2.3 × 7.17	16.491
4	0.45 as a fraction	45/100 or 19/20
5	22.17 + 8.31	30.48
6	(−48) ÷ 6	−8
7	If a = 6 b = 3 and c = 10, what is the value of bc / a ?	5
8	(−10) − (−5)	−5
9	What is the highest common factor of 15 and 27?	3
10	What is the value of 7 squared?	49

Literacy challenge:
Missing vowels!

Below are 3 keywords in maths, but the vowels are missing. Can you fill the blanks?

PLACE VALUE

THOUSAND

SUBTRACTION

Here are the heights of five hills.

Altmore	538m	3
Heathmount	551m	5
Slemish	499m	1
Donard	542m	4
Cley Hill	517m	2

List the hills in order of size, starting with the smallest.

Slemish, Cley Hill, Altmore, Donard, Heathmount

Put these bicycles in order of price, starting with the **highest price**

A	B	C	D

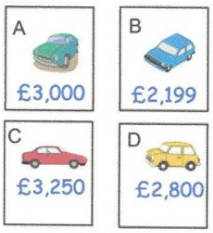
highest — lowest

Write these prices in order, starting with the smallest

£6.30 £3.60 63p £0.36 £3.06

£0.36	63p	£3.06	£3.60	£6.30

smallest — largest



Put these cars in order of price, starting with the **lowest price**

B	D	A	C

lowest — highest

5. Arrange these temperatures in order, from lowest to highest

0°C −20°C 6°C 17°C −13°C

−20°C	−13°C	0°C	6°C	17°C

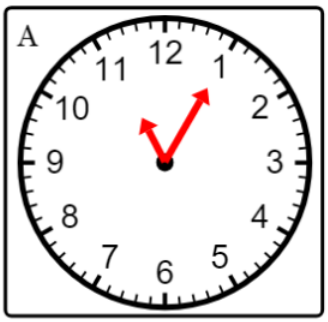
lowest — highest

ANSWERS—WEEK 9

1. Write the correct time under each clock

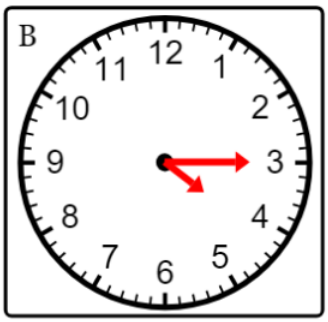
2. On each clock draw the hands in the correct place to show the time given

A



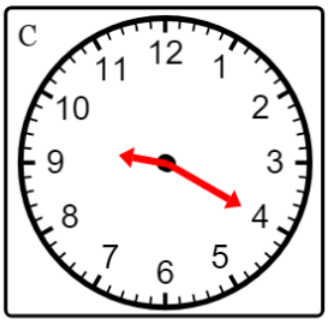
11.05

B



4.15

C

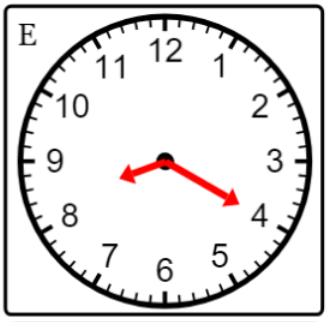


9.20

D

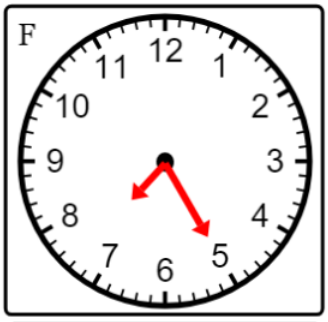
6.30

E



Twenty past eight

F

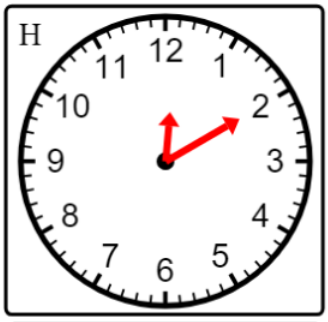


Twenty five past seven

G

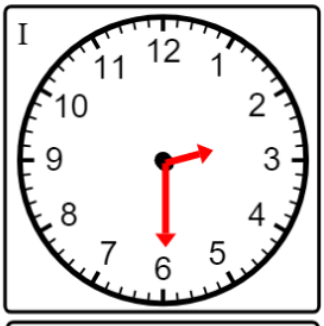
Half past one

H



Ten past twelve

I

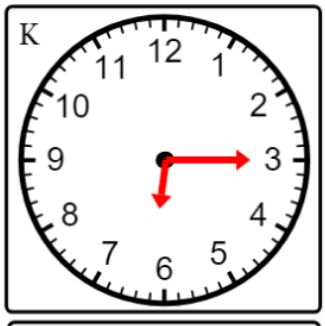


Half past two

J

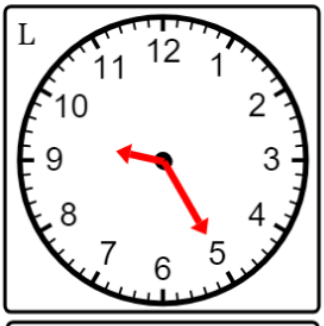
Five o' clock

K



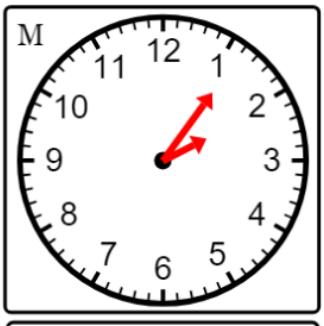
Quarter past six

L



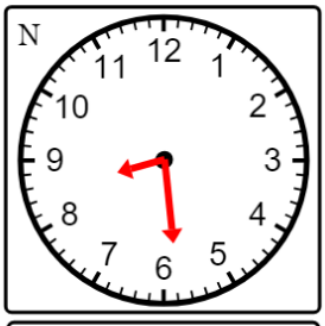
Twenty five past nine

M



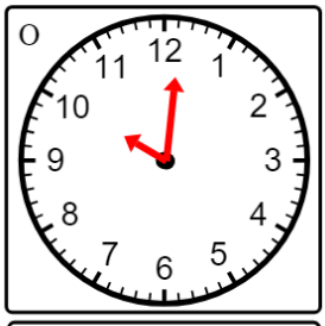
2.06

N



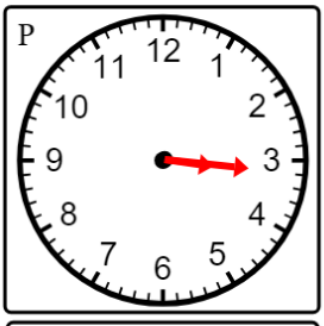
8.29

O



10.01

P



3.16

ANSWERS—WEEK 10

1. (a) 7 (b) 13 (c) 16

(d) 27 (e) 18 (f) 19

(g) 45 (h) 72

2. (a) VIII (b) XVII (c) XXII (d) LVIII (e) XXXIX

(f) LXXXIV (g) LXXVIII (h) CXXIII (i) CCCXXXIX (j) MCCLXV

(k) MLXVI (l) MMMCXCIV

Cistercian Numerals!

Cistercian numerals (going down): 7036, 1995, 7285, 4817, 227, 2700, 3167, 4433, 6390

Q	Question	Answer
1	□ + 5 = 10	5
2	Double 3	6
3	Halve 35	17.5
4	173 + 50	223
5	47 + 44	91
6	32 + 10 = 32 + 8 + □	2
7	1 + 566	567
8	40 + 68 = 40 + 60 + □	8
9	3 + 2	5
10	4 + □ = 20	16

Q	Question	Answer
1	6 × 3 = □	18
2	14 ÷ 2 = □	7
3	6 × □ = 36	6
4	18 ÷ □ = 6	3
5	9 × 3 = □	27
6	32 ÷ 8 = □	4
7	□ × 4 = 24	6
8	□ ÷ 10 = 4	40
9	4 × 2 = □	8
10	30 ÷ 3 = □	10

Q	Question	Answer
1	2688 ÷ 3	896
2	8 + 8 ÷ 2	12
3	245.52 ÷ 4	61.38
4	6.14 × 10	61.4
5	16.15 − 5.11	11.04
6	Write 63/70 in its simplest form	9/10
7	Which is the lowest number, 3 or −9?	−9
8	See number line	45
9	List the first 4 multiples of 14	14, 28, 42, 56
10	What is the value of (−4) cubed?	−64

Value of the dot?

25 75

Literacy challenge: Missing vowels!

Below are 3 keywords in maths, but the vowels are missing. Can you fill the blanks?

S Q U A R E

D E C I M A L S

T I M E S T A B L E S

×	4	3	2	5	6
6	24	18	12	30	36
2	8	6	4	10	12
4	16	12	8	20	24
5	20	15	10	25	30
3	12	9	6	15	18

ANSWERS—WEEK 12

Puzzle 9

Complete these statements using the symbols =, >, <

0.40	=	0.400
0.35	>	0.300
0.2	<	0.25
1.5	>	1.05
1.8	=	1.80
0.01	<	0.1
0.99	<	0.999

Puzzle 7

What is three thousand four hundred and six in figures? 3406

Puzzle 8

Write 1 million and eighty three in figures.

1,000,083

ANSWERS—WEEK 13

Area was counted instead of perimeter

Question 1

(a) 12cm (b) 16cm (c) 10cm (d) 12cm (e) 13cm (f) 18cm

1). 12 cm
2). 22 cm
3). 24 cm
4). 20 cm
5). 42 cm
6). 40 cm
7). 36 m
8). 28 m
9). 30 cm
10). 44 m
11). 36 cm
12). 56 cm
13). 2 m
14). 21 m

EXTRA SUPPORT

If you need help with completing your homework, please use the Mathswatch clips in the LOOK boxes first. If you are still stuck, speak to your class teacher.

If you need to contact the Head of Maths regarding any worries or concerns, you can contact Miss Pankhurst at:

j.pankhurst@benjaminbritten.school

RESOURCES PROVIDED BY:

MathsPad
Corbett Maths
Numeracy Ninjas
Mr Carter Maths
Miss B's Resources
NRich
Worksheet Works
10Ticks