Benjamin Britten Academy of Music and Mathematics

MATHEMATICS HOMEWORK BOOKLET

Year 7 Book B

AUTUMN TERM

NAME:

CONTENTS

WEEK	HOMEWORK TITLE
1	Numeracy
2	Adding and subtracting
3	Research task
4	Numeracy
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6	Mathswatch
7	Numeracy
8	Multiplying and dividing
9	Real life maths
10	Numeracy
11	Area of 2D shapes
12	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

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.

Mathswatch

Username—firstnamelastname@benjamin

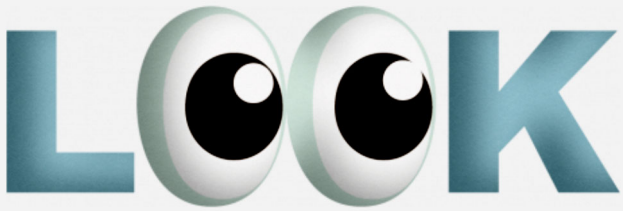
Password—your DOB (format: monthDYYYY)

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

Literacy challenge – Missing vowels!

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

_ DD _ T _ _ N

M _ LT _ PL _ C _ T _ _ N

_ R _ THM _ T _ C

Quick maths! Just 5 mins...go!

★★	
B1	45 + 658
B2	5668 × 9
B3	5 × 2122
B4	70 + 485
B5	8067 × 7
B6	8 × 2373
B7	428 − 93
B8	1003 × 3
B9	982 − 25
B10	706 + 67

Recall and Recap

MENTAL STRATEGIES - do these in your head

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	

TIMESTABLES – do these in your head

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	

KEY SKILLS – you may use written calculations for these questions

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	

LOOK

N15a, N16, N7b, N10

HW 1

Problem solving!

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

LOOK

N3

1. **Number grid**

Here is a number grid.

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

Two squares are shaded.

(a) What is the **total** of the numbers in the two shaded squares?

... ...

1 mark

(b) Shade **two different squares** that have the **same total** as the answer to part (a).

1 mark

(c) What is the **total** of the numbers in **all four** shaded squares?

... ...

1 mark

HOMEWORK 2: ADDING AND SUBTRACTING

Recall and Recap: Numeracy skills

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 = ____
25).	13 + 6 = ____	26).	85 - 65 = ____	27).	57 - 53 = ____
28).	40 + 23 = ____	29).	12 + 7 = ____	30).	16 - 7 = ____
31).	58 - 52 = ____	32).	30 + 17 = ____	33).	54 + 9 = ____
34).	54 + 19 = ____	35).	70 - 20 = ____	36).	42 - 37 = ____
37).	45 + 5 = ____	38).	13 + 11 = ____	39).	47 - 7 = ____
40).	26 - 5 = ____	41).	83 - 74 = ____	42).	16 + 8 = ____
43).	15 - 7 = ____	44).	19 - 4 = ____	45).	73 - 68 = ____
46).	36 + 20 = ____	47).	38 - 6 = ____	48).	12 - 9 = ____
49).	9 + 8 = ____	50).	30 + 37 = ____	51).	40 - 6 = ____
52).	20 - 4 = ____	53).	36 + 5 = ____	54).	13 + 7 = ____
55).	49 + 7 = ____	56).	93 + 4 = ____	57).	30 - 3 = ____
58).	82 + 14 = ____	59).	21 - 4 = ____	60).	63 - 7 = ____

Applying your skills

Calculate 63 + 38

Bronze ★

Calculate 63 – 38

Bronze ★

Find the difference between 804 and 357.

Bronze ★

Find the sum of 634 and 173.

Bronze ★

Below is a customer's gas meter readings.

Previous Reading: 5397
Current Reading: 5786

Work out how many units of gas were used.

Silver ☆

LOOK

N13, N14

HW 2

Problem solving!

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

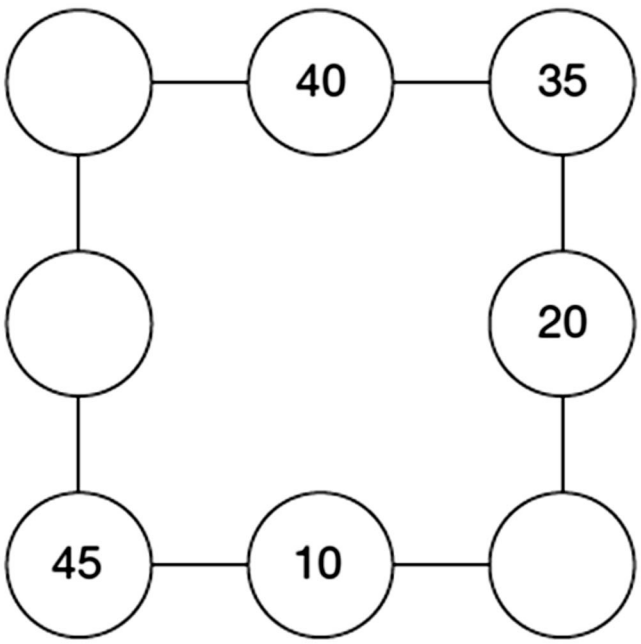
LOOK

N13, N14

Circle totals

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

Write in the missing numbers.



HOMEWORK 3: THE SIEVE OF ERATOSTHENES

You will need to complete some research for this homework task. Try and find the answers for 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: NUMERACY

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

Quick maths! Just 5 mins...go!

★★	
B1	36 + 951
B2	981 ÷ 3
B3	683 + 51
B4	6668 × 2
B5	5633 × 4
B6	2696 ÷ 8
B7	3780 ÷ 9
B8	960 ÷ 5
B9	7 × 3848
B10	2187 ÷ 9

Recall and Recap

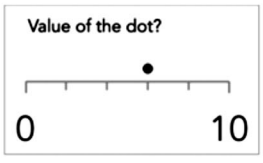
MENTAL STRATEGIES - do these in your head

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	

TIMESTABLES – do these in your head

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	

KEY SKILLS – you may use written calculations for these questions

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	

LOOK

N11, N23c, N25

HW 4

Problem solving!

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

LOOK

N5, N6, N15, N16

Symbols

Look at these symbols.

Choose two of the symbols to make a correct calculation.

12 ☐ 3 ☐ 4

1 mark

Now choose two of the symbols to make a **different** correct calculation.

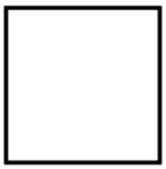
12 ☐ 3 ☐ 4

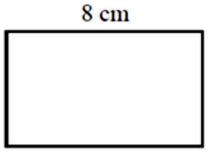
1 mark

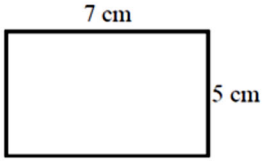
HOMEWORK 5: PERIMETER

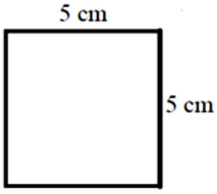
Recall and Recap: Simple perimeter problems

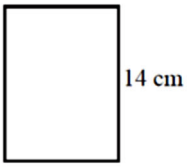
Find the perimeter of the following rectangles and squares.
Remember to give the units for each answer. (Diagrams are not to scale).

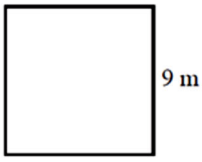
1). 

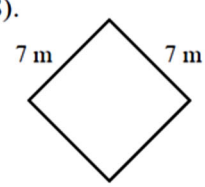
2). 

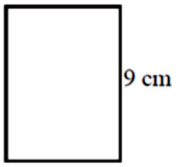
3). 

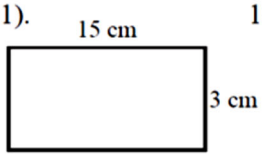
4). 

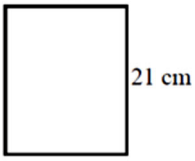
6). 

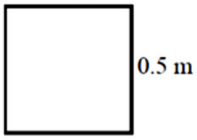
7). 

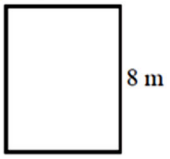
8). 

9). 

11). 

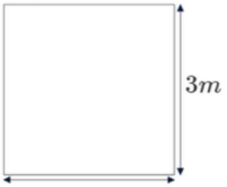
12). 

13). 

14). 

Applying your skills

Calculate the perimeter for each square:

Q1) 

Q2) 

Q3) 

Problem solving!

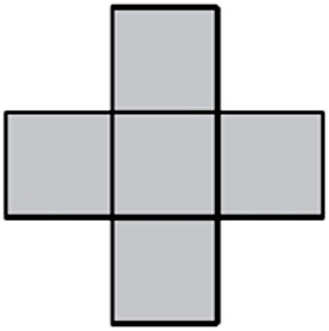
Apply your core skills to the challenge questions below...

LOOK

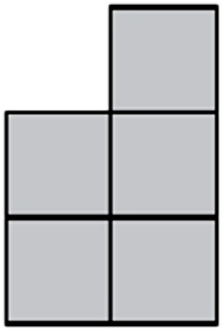
G8

Two shapes

Shape A and shape B are each made from five identical squares.



A



B

Not drawn accurately

The **perimeter** of shape A is **72cm**.

Work out the **perimeter** of shape B.

HOMEWORK 6: 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.

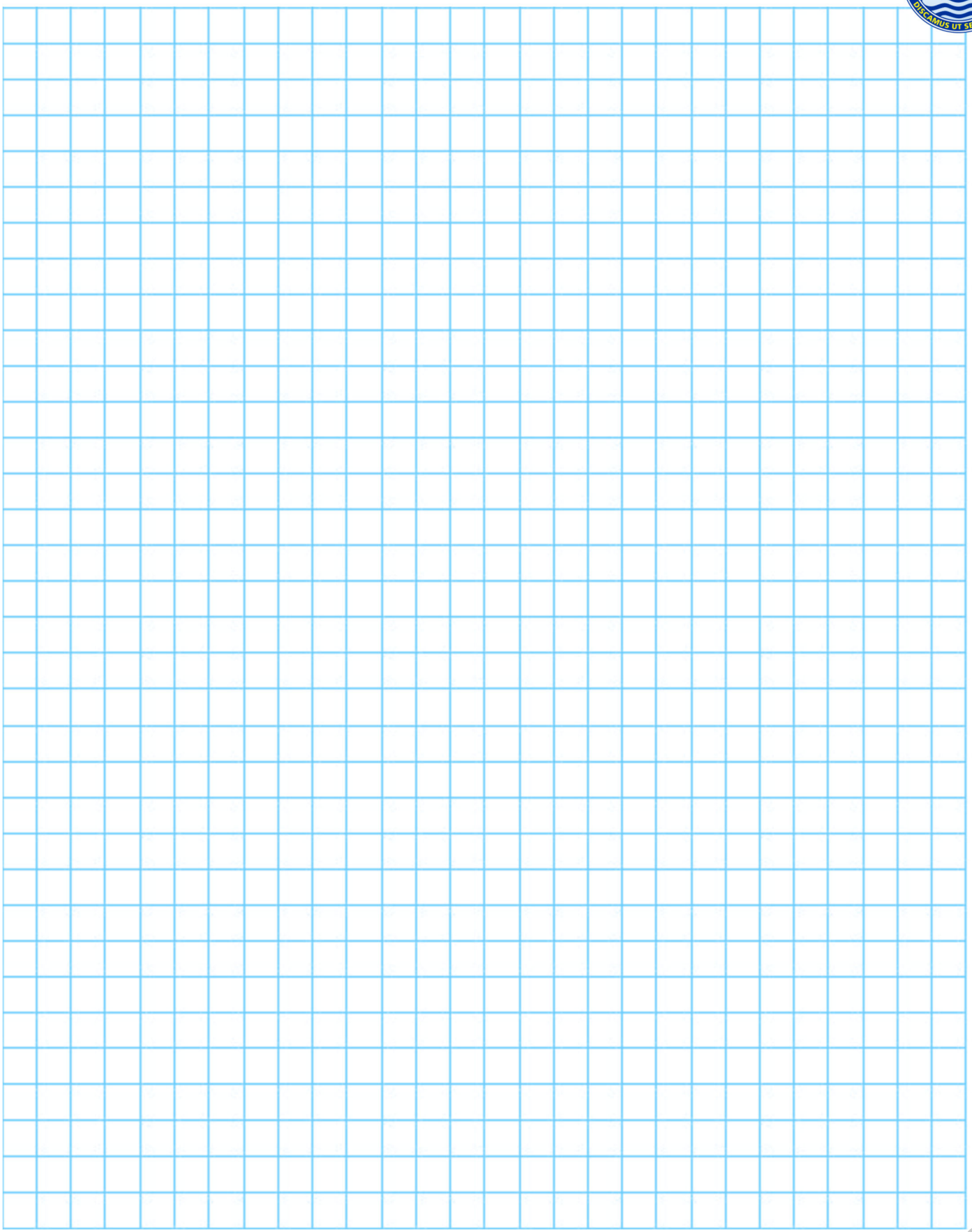
If you have any issues logging in, you must speak to your class teacher as soon as possible.

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 7: 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

Quick maths! Just 5 mins...go!

★★	
B1	7117 – 4020
B2	188 × 43
B3	366 × 43
B4	1006 + 2479
B5	7909 – 3570
B6	982 × 85
B7	70 × 412
B8	3995 + 3746
B9	7909 + 4522
B10	98 × 679

Recall and Recap

MENTAL STRATEGIES - do these in your head

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	

TIMESTABLES – do these in your head

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

N7b, A10, N19, N31a

KEY SKILLS – you may use written calculations for these questions

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...

LOOK

N3, N7c

Drinks

A café sells small, medium and large drinks.

The table shows the number of drinks the café sold on one day.

	Coffee	Tea	Chocolate
Small	110	14	24
Medium	121	103	42
Large	90	64	58

(a) Altogether, how many **chocolate** drinks were sold?

.....

2 marks

(b) A **small tea** costs **50p**.

Altogether, how much was spent on small teas?

£

1 mark

HOMEWORK 8: MULTIPLYING AND DIVIDING

Recall and Recap: Core times table skills

1).	1 x 2 = ___	2).	3 ÷ 3 = ___	3).	2 x 3 = ___
4).	6 ÷ 3 = ___	5).	4 ÷ 2 = ___	6).	3 x 3 = ___
7).	0 x 2 = ___	8).	1 x 4 = ___	9).	10 ÷ 5 = ___
10).	6 ÷ 2 = ___	11).	5 ÷ 5 = ___	12).	4 x 2 = ___
13).	16 ÷ 4 = ___	14).	30 ÷ 3 = ___	15).	5 x 5 = ___
16).	3 x 7 = ___	17).	4 x 5 = ___	18).	2 x 6 = ___
19).	18 ÷ 2 = ___	20).	5 x 2 = ___	21).	0 x 10 = ___
22).	4 x 3 = ___	23).	10 x 1 = ___	24).	35 ÷ 5 = ___
25).	60 ÷ 10 = ___	26).	20 ÷ 4 = ___	27).	16 ÷ 8 = ___
28).	8 x 2 = ___	29).	21 ÷ 3 = ___	30).	8 x 5 = ___
31).	40 ÷ 4 = ___	32).	15 ÷ 5 = ___	33).	7 x 2 = ___
34).	2 x 9 = ___	35).	70 ÷ 10 = ___	36).	50 ÷ 5 = ___
37).	15 ÷ 5 = ___	38).	8 ÷ 4 = ___	39).	5 x 3 = ___
40).	90 ÷ 10 = ___	41).	3 x 8 = ___	42).	4 x 7 = ___
43).	12 ÷ 6 = ___	44).	0 x 3 = ___	45).	10 x 2 = ___
46).	4 x 6 = ___	47).	6 x 5 = ___	48).	7 x 5 = ___
49).	6 x 3 = ___	50).	2 x 10 = ___	51).	3 x 0 = ___
52).	10 x 0 = ___	53).	18 ÷ 2 = ___	54).	7 x 10 = ___
55).	3 x 9 = ___	56).	4 x 8 = ___	57).	20 ÷ 2 = ___
58).	3 x 10 = ___	59).	24 ÷ 3 = ___	60).	24 ÷ 4 = ___
61).	1 x ___ = 5	62).	___ x 2 = 4	63).	___ x 3 = 3
64).	___ x 2 = 10	65).	___ x 3 = 15	66).	2 x ___ = 10
67).	___ ÷ 3 = 2	68).	4 ÷ ___ = 1	69).	10 ÷ ___ = 2
70).	21 ÷ ___ = 7	71).	___ ÷ 3 = 10	72).	___ ÷ 2 = 2
73).	6 ÷ ___ = 3	74).	5 x ___ = 10	75).	4 x ___ = 8
76).	___ x 2 = 18	77).	1 x ___ = 4	78).	___ x 2 = 16
79).	___ x 3 = 12	80).	1 x ___ = 3	81).	20 ÷ ___ = 4

CHALLENGE: Worded problems

Hunter needs to make 420 cakes for a wedding. Each batch of cake mix makes 12 cakes.

How many batches will he need to make?

Silver

A school takes 7 coaches of students to the cinema as a reward. Each coach holds 42 passengers and is full.

How many students went to the cinema?

Silver

LOOK

N15, N16

HW 8

Multiplying mazes puzzle!

Find the path of numbers that multiply to the product at the exit arrow. Beginning from the upper left, move one square at a time, either down or to the right.

8	5	10
2	9	6
7	3	8

2,688

7	5	2	3
3	8	6	4
10	6	10	2
4	9	8	4

6,720

10	5	9	3	2
4	5	7	9	9
8	2	9	7	2
3	6	10		3
6	3	8	2	2

230,400

HOMEWORK 9: REAL LIFE MATHS

Everybody loves cake - like this cherry cake. Yum!

And another thing everybody likes is maths.

There's a surprising amount of overlap between these two activities - a lot of real-life maths involved in following a recipe.

The recipe given below is delicious and easy to make at home. If you want to use a different recipe or to bake bread, or cook your favourite meal, go for it!

Your teacher will tell you how they'd like you to present your work.

LOOK
N7a

Task:

1. Follow a recipe, either the one below or any of your own choice.
2. Make a note of all the maths involved.
3. Think of at least one mathematical question you could ask about the cooking you've done.
4. There are lots of examples of mathematical questions on the next page. Explore some of them as well as some of your own.They are graded from one to three cherries.

Cherry and almond cake

Ingredients	Method
175g self-raising flour	Heat oven to 160ºC (140ºC fan, gas mark 3).
½ tsp baking powder	Rinse the cherries in hot water to remove the syrup, cut them in half and cover in flour to stop them sinking to the bottom of the cake.
200g softened butter	Beat the butter and sugar together until light and fluffy.
200g caster sugar	Beat the eggs and add them in a little at a time.
4 eggs	Add in the almond extract.
85g ground almonds	Sieve the flour and baking powder and gently fold into the mixture with the ground almonds.
½ tsp almond extract	Mix in the cherries and the milk.
300g glacé cherries	Put your mixture in a greased 20cm (7 inch) round tin. Bake for 1-1¼ hours.
100ml milk	Allow cake to cool before removing from its tin.
2tbsp flaked almonds	

Now solve the problems below:

LOOK

N7c, N7a, G2, G25

Cake baking maths questions:

Here are some examples of *cake maths* questions to have a go at. They are graded in difficulty from one to three cherries.

Ask your own questions too.

Consider how you are going to present your work to your teacher. You should include a photo of your cake, any calculations you have made, information you have researched and conclusions you have come to.

Angles

- Would you like an acute, obtuse or reflex sized slice of cake? Explain why.
- Estimate the angle of the piece of cake in the photo.
- How many slices of this size could I cut the whole cake in to?

Money

- Calculate the total cost of all the ingredients in this cake.
- How much per slice?

Volume

The cake was baked in a 20cm round tin.

- What is the mathematical name of this 20cm measurement on a circle?
- The cake is about 6 cm high. Calculate its volume.

HOMEWORK 10: NUMERACY

Literacy challenge – Missing vowels!

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

SQ _ _ R _

D _ C _ M _ LS

S _ BTR _ CT _ _ N

Quick maths! Just 5 mins...go!

★★	
B1	7744 + 7307
B2	1140 ÷ 12
B3	6562 + 3752
B4	5268 − 2156
B5	5438 − 2089
B6	8901 − 4046
B7	9560 − 3190
B8	49 × 438
B9	578 × 16
B10	224 ÷ 14

Recall and Recap

MENTAL STRATEGIES - do these in your head

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	

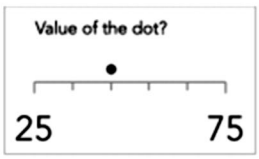
TIMESTABLES – do these in your head

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

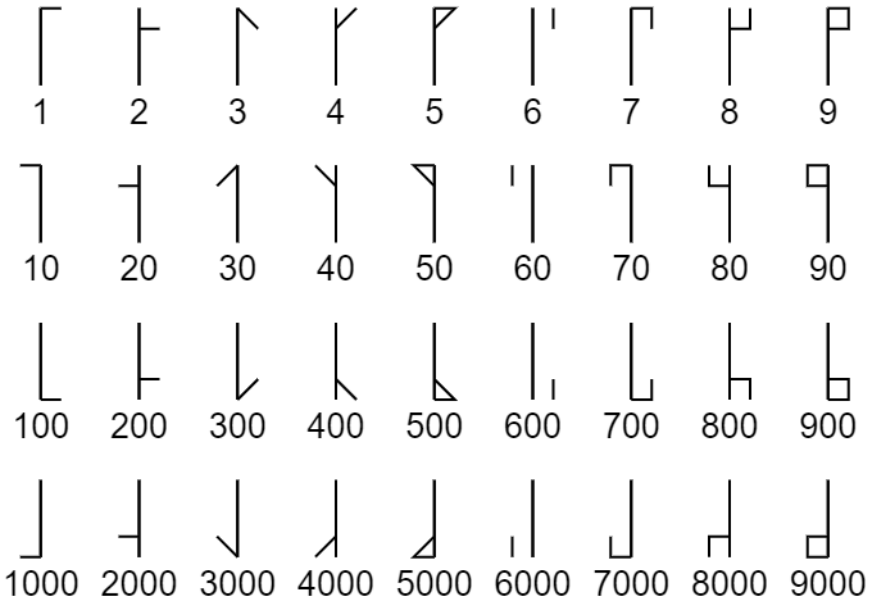
N23c, N11, N25, N19b

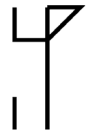
KEY SKILLS – you may use written calculations for these questions

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	

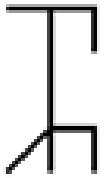
Cistercian Numerals!

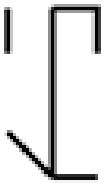
Using the key below, see if you can work out what numbers these Cistercian numerals represent.

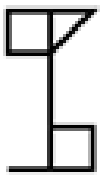


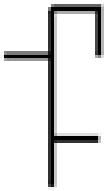
For example  **= 6085**

 = 7 0 _ _

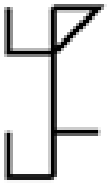
 = _ 8 _ _

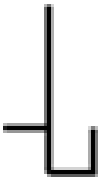
 =

 = _ 9 _ 5

 = 0 _ _ _

 =

 = _ _ 8 _

 =

 =

HOMEWORK 11: AREA OF 2D SHAPES

Recall and Recap: Area problems

5439

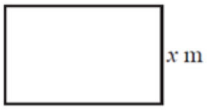
Missing Lengths - Squares and Rectangles

Find the missing length, x, for each question. Remember to give the units for each answer.

1). Area = 16 cm²

2). Area = 35 m²

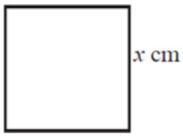
3). Area = 6 m²



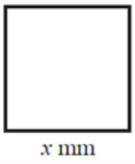
4). Area = 48 cm²

5). Area = 32 mm²

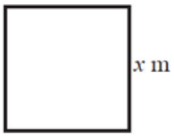
6). Area = 16 cm²



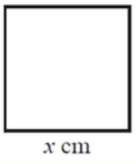
7). Area = 4 mm²



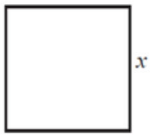
8). Area = 49 m²



9). Area = 25 cm²



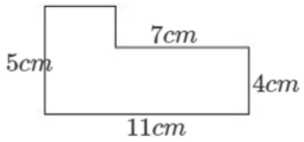
10). Area = 100 mm²



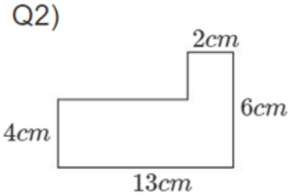
Applying your skills

Find the area of each of the shapes below:

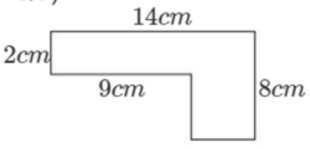
Q1)



Q2)



Q3)



LOOK

G20

HW 11

Problem solving!

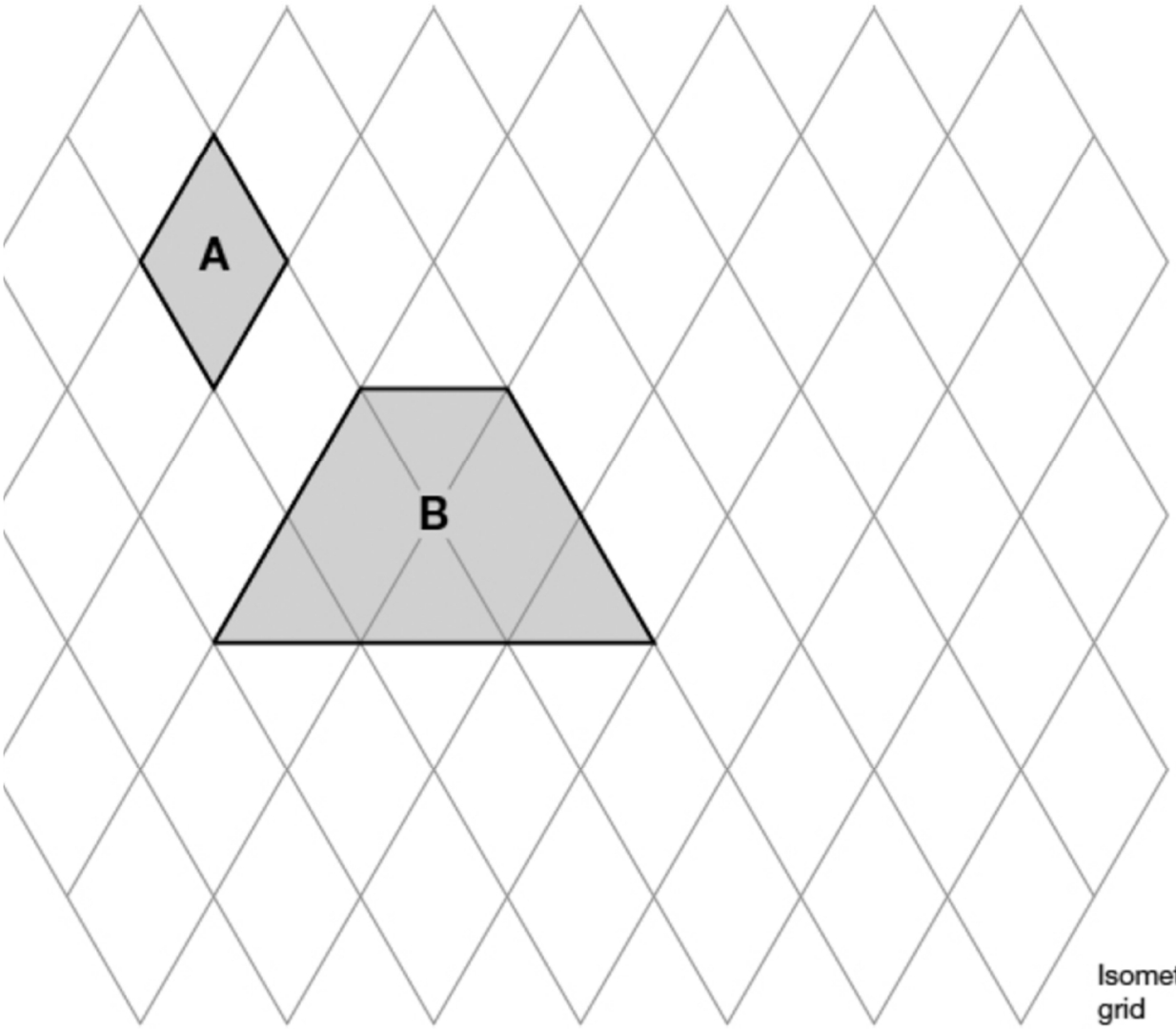
Apply your core skills to the challenge questions below...

LOOK

G9

Rhombus grid

Look at the shaded shapes.



Isometric grid

(a) The area of shape **A** is **3cm²**

What is the area of shape **B**?

..... cm²

1 mark

(b) On the grid, draw a **triangle** that has an area of **6cm²**

1 mark

HOMEWORK 12: 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.

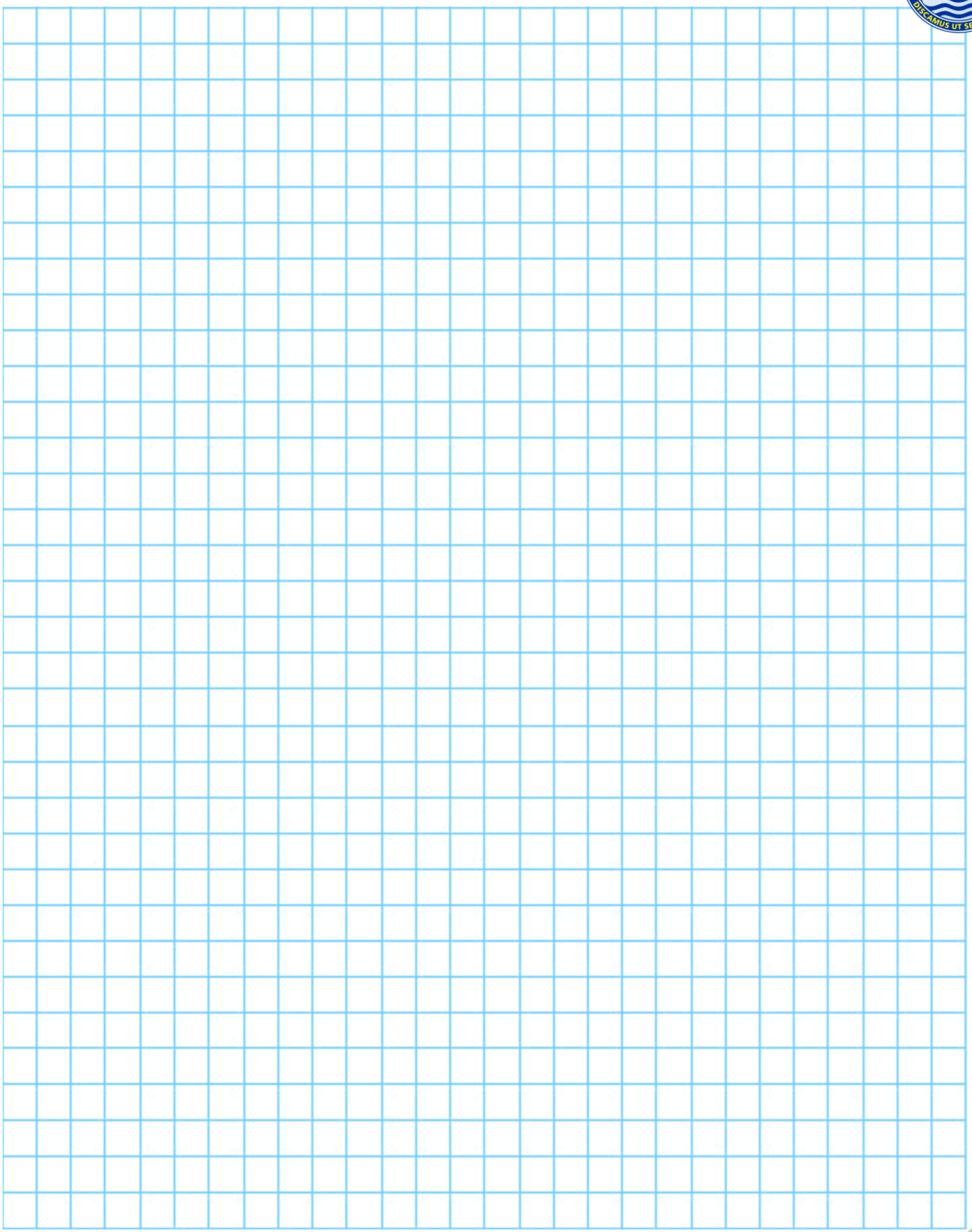
If you have any issues logging in, you must speak to your class teacher as soon as possible.

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:



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	703
B2	51012
B3	10610
B4	555
B5	56469
B6	18984
B7	335
B8	3009
B9	957
B10	773

1. (a) 132

1

(b) Indicates two different squares with a total of 132

Accept squares not shaded but a correct pair of numbers indicated in working

Note to markers:

Four squares with a total of 264 will usually create a pattern with rotation symmetry of order 2 about the number 66 on the grid,

eg

However, the correct indications of either 51 and 81 or 61 and 71 do not show this symmetry

! ***Follow-through***

For part (b), accept any two squares shaded that sum to their (a)

1

(c) 264

! ***Follow-through***

For part (c), accept 2 × their (a), provided their (a) is a three-digit number

or

the sum of their two shaded squares in part (b) + 132

or

the sum of their two shaded squares in part (b) + their (a) provided their (a) is a three-digit number

1

[3]

ANSWERS—WEEK 2

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	25).	19	26).	20	27).	4	28).	63
29).	19	30).	9	31).	6	32).	47	33).	63	34).	73	35).	50
36).	5	37).	50	38).	24	39).	40	40).	21	41).	9	42).	24
43).	8	44).	15	45).	5	46).	56	47).	32	48).	3	49).	17
50).	67	51).	34	52).	16	53).	41	54).	20	55).	56	56).	97
57).	27	58).	96	59).	17	60).	56						

Calculate $63 + 38$

101

Bronze

Calculate $63 - 38$

25

Bronze

Find the difference between 804 and 357.

$804 - 357 = 447$

Bronze

Find the sum of 634 and 173.

$634 - 173 = 807$

Bronze

Below is a customer's gas meter readings.

Previous Reading: 5397
Current Reading: 5786

Work out how many units of gas were used.

$5786 - 5397 = 389\ units$

Silver

Completes the diagram correctly, ie

2

Gives two correct values

i For 1m, follow-through from their 25

Accept follow-through for their 30 as 55 – their 25

1

(U1)

[2]

ANSWERS—WEEK 4

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**
8	See number line	**6**
9	What is the lowest common multiple of 4 and 5?	**20**
10	What is the cube root of 27?	**3**

	★★	★★★
B1	987	C1 4327
B2	327	C2 33411
B3	734	C3 389
B4	13336	C4 29241
B5	22532	C5 13
B6	337	C6 46
B7	420	C7 8865
B8	192	C8 41472
B9	26936	C9 10231
B10	243	C10 5510

Symbols

Look at these symbols.

$\square$ $\square$ $\square$

Choose two of the symbols to make a correct calculation.

12 $\square$ 3 $\square$ 4

1 mark

Now choose two of the symbols to make a **different** correct calculation.

12 $\square$ 3 $\square$ 4

1 mark

ANSWERS—WEEK 5

Bronze
Q1) Perimeter is $12m$
Q2) Perimeter is $24cm$
Q3) Perimeter is $56m$

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
15). 20 m

60

2

Shows the value 6

or

Shows a complete correct method with not more than one computational error

eg

- $72 \div 12 = 8$ *(error)*, $10 \times 8 = 80$

1

(U1)

[2]

ANSWERS—WEEK 7

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

✶✶	
B1	3097
B2	8084
B3	15738
B4	3485
B5	4339
B6	83470
B7	28840
B8	7741
B9	12431
B10	66542

(a) 124 **2**

or Shows a complete correct method with not more than one computational error

eg

- 24
  42
  58
  126 *(error)*

- 24 + 42 = 64 *(error)*, 64 + 58 = 122 **1**

(b) £ 7(.00) **1**

[3]

ANSWERS—WEEK 8

Page 35. 15 Minute Divide Challenge.

1).	1	2).	2	3).	1	4).	4	5).	2	6).	5	7).	4
8).	2	9).	3	10).	2	11).	1	12).	10	13).	7	14).	5
15).	4	16).	2	17).	4	18).	2	19).	2	20).	10	21).	6
22).	3	23).	2	24).	3	25).	5	26).	7	27).	3	28).	8
29).	8	30).	1	31).	10	32).	5	33).	1	34).	3	35).	6
36).	4	37).	8	38).	2	39).	5	40).	5	41).	4	42).	7
43).	4	44).	9	45).	3	46).	2	47).	6	48).	3	49).	10
50).	9	51).	9	52).	5	53).	9	54).	6	55).	3	56).	3
57).	1	58).	5	59).	4	60).	7	61).	2	62).	6	63).	8
64).	4	65).	3	66).	6	67).	2	68).	5	69).	10	70).	15
71).	2	72).	3	73).	4	74).	30	75).	5	76).	2	77).	4
78).	2	79).	24	80).	12	81).	4						

Hunter needs to make 420 cakes for a wedding. Each batch of cake mix makes 12 cakes.

How many batches will he need to make?

$420 \div 12 = 35$ batches

Silver

A school takes 7 coaches of students to the cinema as a reward. Each coach holds 42 passengers and is full.

How many people went to the cinema?

$7 \times 42 = 294$ people

Silver

Multiplying mazes puzzle!
2,688
8 5 10
2 9 6
7 3 8
6,720
7 5 2 3
3 8 6 4
10 6 10 2
4 9 8 4
230,400
10 5 9 3 2
4 5 7 9 9
8 2 9 7 2
3 6 10 3
6 3 8 2 2

ANSWERS—WEEK 10

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

B1	15051
B2	95
B3	10314
B4	3112
B5	3349
B6	4855
B7	6370
B8	21462
B9	9248
B10	16

Cistercian Numerals!

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

ANSWERS—WEEK 11

1) 2 2) 7 3) 2 4) 8 5) 4

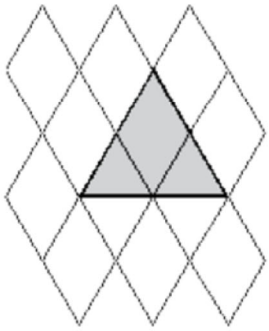
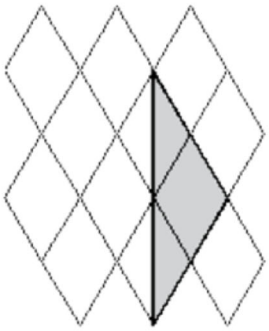
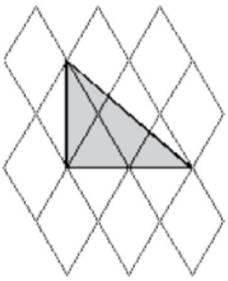
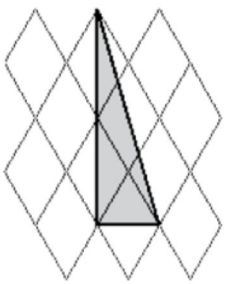
6) 4 7) 2 8) 7 9) 5 10) 10

(a) 12

1

(b) Draw a correct triangle

eg

- 
- 
- 
- 

! ***Lines not ruled or accurate, or triangle not shaded***
Accept provided the pupil's intention is clear

! ***Vertices of triangle not on the intersections of the grid***
Accept vertices within 2mm of the intersections of the grid

! ***Other shapes drawn***
As these may be trials, ignore

1

[2]

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:

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