

Benjamin Britten Academy of Music and Mathematics

MATHEMATICS HOMEWORK BOOKLET



Year 7 Book C
SPRING TERM



NAME:



CONTENTS

WEEK	HOMEWORK TITLE
1	Numeracy
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Mathswatch **Log in details:**

To log into mathswatch, please click the google button and type in your school email address and your password.

Sign In

Username

[View Demo](#) [Sign In](#)

Or sign in with...

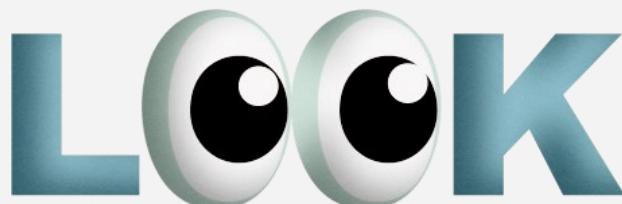
username example (school email): 25bloggsj@benjaminbritten.school
Password example (school password): BlueCat123.

Completing your homework

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

There are **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

Complete the multiplication grid below.

x	2	8	4	12	7	11	9	3	6	5	10
3											
6											
8											
4											
10											
11											
9											
5											
7											
12											
2											

Complete the multiplication grid below.

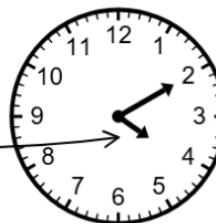
x	10	20	30	40
2	20	40		80
3	30	60		
4	40		120	
5		100		
10			300	

measuring time 1 (the first half hour)

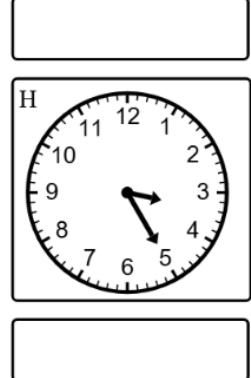
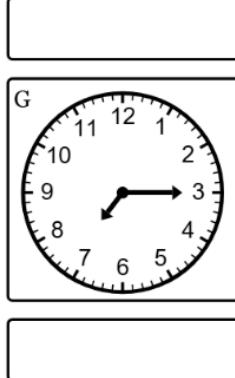
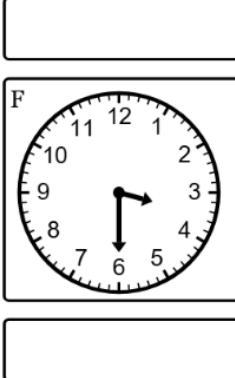
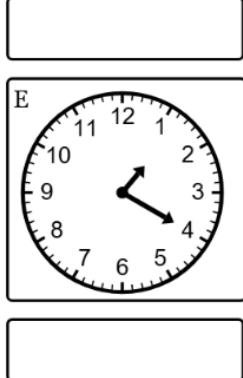
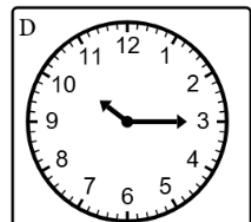
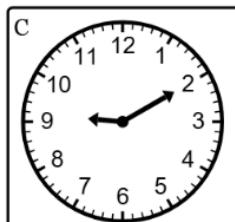
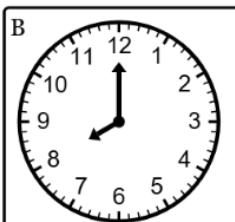
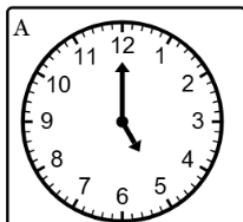
learn by heart

The hour hand is the shorter hand

The minute hand is longer



1. Write the correct time under each clock



MENTAL STRATEGIES -
do these in your head

TIMESTABLES -
do these in your head

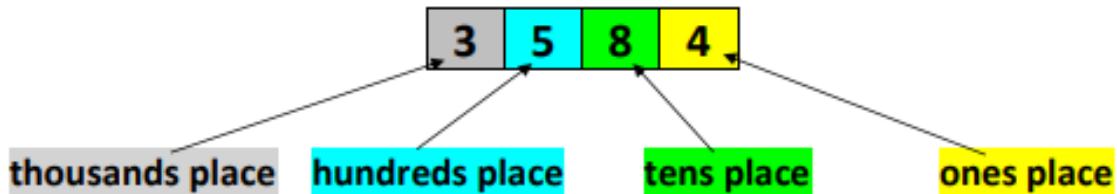
Q	Question	Answer
1	$3 + 17$	
2	What is double 55?	
3	$112 + 10$	
4	$29 - 10$	
5	$6 = 1 + \square$	
6	$58 - 11 = 58 - 8 - \square$	
7	$73 + 73 = \square \times 73$	
8	Draw hands on the clock face showing 10:10 am	
9	$7 + 3$	
10	$\square + 46 = 100$	
Total out of 10		

Q	Question	Answer
1	$6 \times 7 = \square$	
2	$24 \div 4 = \square$	
3	$4 \times \square = 28$	
4	$24 \div \square = 4$	
5	$7 \times 6 = \square$	
6	$18 \div 6 = \square$	
7	$\square \times 4 = 4$	
8	$\square \div 2 = 3$	
9	$5 \times 7 = \square$	
10	$54 \div 6 = \square$	
Total out of 10		



HOMEWORK 2: PLACE VALUE

A digit's place value tells us how much each digit is worth.



1) Write down which digit is in the **ones** place:

1267 → 7	4235 →	3190 →	8302 →
----------	--------	--------	--------

2) Write down which digit is in the **tens** place:

2743 →	5194 →	8320 →	307 →
--------	--------	--------	-------

3) Write down which digit is in the **hundreds** place:

6035 →	3502 →	1238 →	839 →
--------	--------	--------	-------

4) Write down which digit is in the **thousands** place:

6235 →	8302 →	1428 →	389 →
--------	--------	--------	-------

What is the value of the...

8	87	
4	649	
1	821	
6	462	

2	9872	
3	3908	
5	1053	
9	7892	

What is the value of the...

6	79621	
2	33026	
4	49996	
7	67062	

1	61903	
4	45170	
9	12934	
2	94023	



Write in digits:

a) Three million and twenty two
b) Five hundred and eighteen thousand
c) Twenty six thousand and four
d) Ninety four million, three thousand and six
e) Four million, two hundred and three thousand
f) Three hundred and six thousand and thirty nine

Select the correct answer from a choice of 8 possibilities.

1) I am a 3 digit number.

I am greater than 350.

My hundreds digit is even.

I am not a multiple of 5.

Who am I?

782	495	328	294
684	583	835	962

2) I am not a multiple of 10.

My tens digit is a multiple of 3.

If you round me to the nearest 100, I become 500.

Who am I?

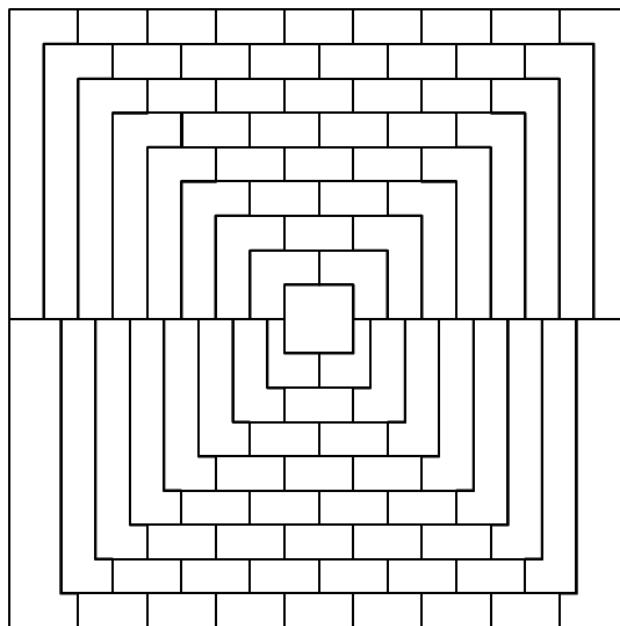
427	476	562	460
528	592	530	535



HOMEWORK 3: FOUR COLOUR THEOREM

Part A

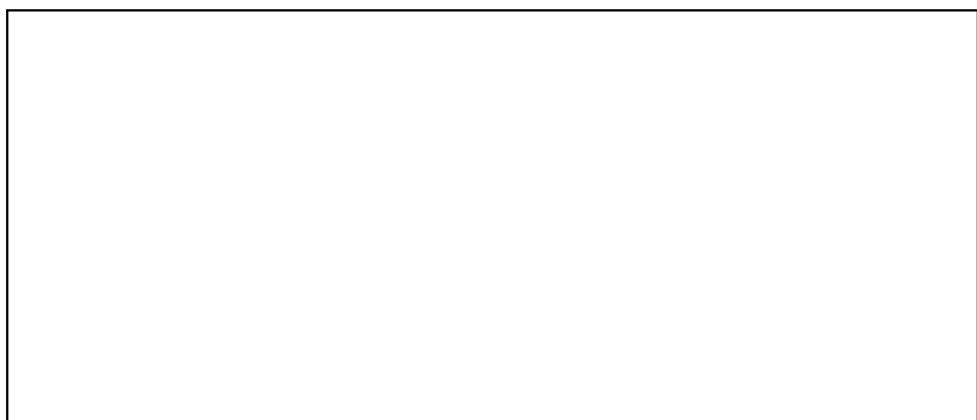
Colour in the pattern so that no areas which touch have the same colour. Try to use the least number of different colours possible.



What is the least number of different colours that are needed?

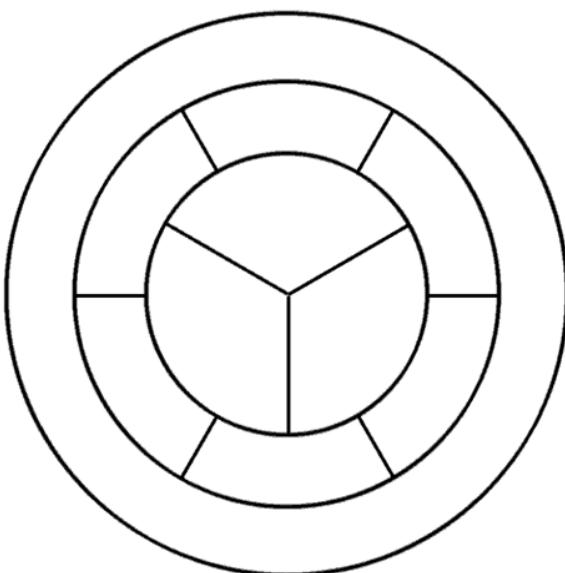
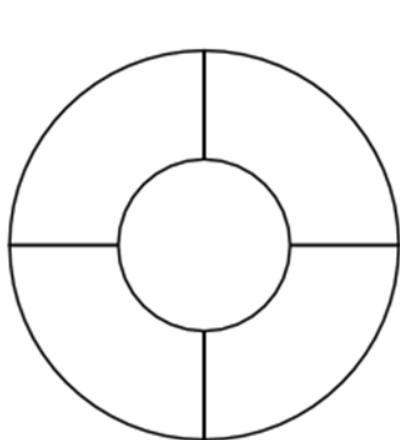
Part B

Now make your own pattern using the same rule (you can't have the same colours next to each other). Try to make a pattern which needs the greatest number of different colours.



What is the greatest number of different colours that are needed?

How many colours do you need to colour the two pictures below so that no two touching parts are the same colour? Use your own colours to test it out. Try to use the minimum number of colours possible.



Thanks to the Four Colour Theorem, we know that any picture of this kind only requires four different colours (to have no touching parts be the same colour).

RESEARCH: Use the internet or books to answer the following questions.

Q1 a) What is cartography?

b) How does the Four Colour Theorem link to cartography?

Q2 Why do some people believe that the Four Colour Theorem has not been proven properly?

Q3 Who famously thought he had proved the Four Colour Theorem but found out ten years later that he had made a mistake?



HOMEWORK 4: NUMERACY

Complete the multiplication grid below.

\times	7	2	12	4	6	8	11	3	5	9	10
4											
7											
12											
2											
5											
8											
11											
9											
3											
6											
10											

\times	50	20	60	30
2	100	40		
3	150		180	
4		80		
5				
10				300

short division



example

Calculate $635 \div 5$

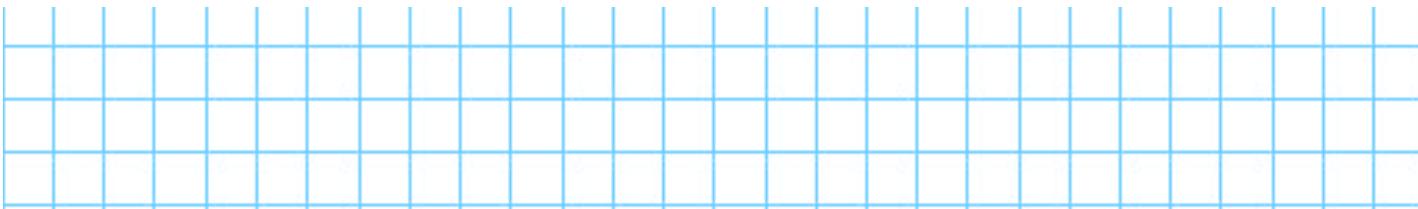
$$\begin{array}{r} 135 \\ \hline 5 \overline{)675} \end{array}$$

Calculate the following. The answers are all integers:

$$\text{a) } 448 \div 8$$

$$\text{c) } 468 \div 9$$

e) $639 \div 9$



short division

example

Calculate $42 \div 8$

$$\begin{array}{r} 5.25 \\ 8 \overline{)4^4 2.000} \end{array}$$

Start by asking, how many 8's in 4? None.

Carry the 4 - how many 8's in 42? **5**. Remainder 2.

Carry the remainder - how many 8's in 20? **2**. Remainder 4.

Carry the remainder - how many 8's in 40? **5.**

b) $2766 \div 6$

d) $665 \div 5$

f) $20,095 \div 5$

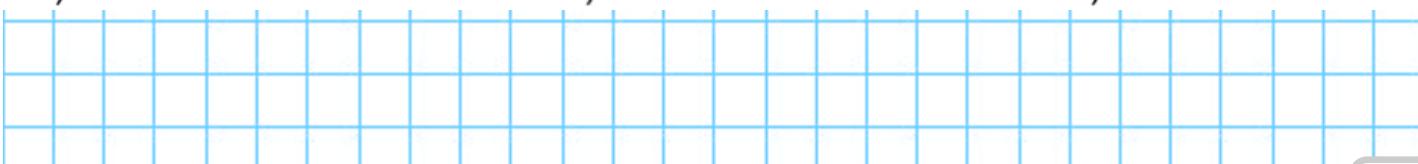


Calculate the following. The answers are all decimals:

a) $100 \div 8$

c) $211 \div 5$

e) $941 \div 5$





HOMEWORK 5: AVERAGES

Recall and Recap:

Here is a fun rhyme to help you remember the three M's and the R:

Hey diddle diddle, the **median's** the middle,
You add then divide for the **mean**.

The **mode** is the one that you see the most,
And the **range** is the difference between.

For each set of data, work out the average or range:

a) 9 4 6 6 4 7 6 2	Mode	b) 34 36 43 41 34	Median
c) 2 3 4 4 4 5 6 7	Range	d) 2 3 6 7 7 8	Mean
e) 21 15 19 31 32 19	Median	f) 320 331 327 313 326	Range
g) 24 15 16 24 17	Mean	h) 35 30 26 36 17 25	Mode

What's wrong?

Harry has tried to work out some averages and ranges, but has got all of them wrong! Work out what is wrong with each of Harry's answers.

a) Work out the mode: 7 6 7 4 12 11 6 Mode = 7 X	b) Work out the median: 48 61 48 55 54 49 54 Median = 55 X
c) Work out the median: 0.9 0.9 0.9 1.3 1.3 1.3 Median = 0.9 and 1.3 X	d) Work out the range: 78 82 83 87 93 96 Range = 96 - 78 = 22 X

Problem solving!

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

If it is false please write down why.



True or False?

Averages and Range

For each statement, circle the correct response.

1	4, 2, 8, 3, 9	The range is 5	True	False
2	5, 7, 8, 11, 12	The median is 8	True	False
3	9, 6, 6, 3, 4	The mode is 6	True	False
4	10, 1, 9, 4	The mean is 6	True	False
5	5, 6, 6, 8, 8, 9	The median is 6 and 8	True	False
6	1, 2, 3, 5, 6, 9	The median is 4	True	False
7	2, 3, 4	The mean, mode and median are all 3	True	False
8	5, 8, 2, 6, 3	There is no mode	True	False
9	8, 11, 6, 4, 6	The mean and the range are the same	True	False



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.

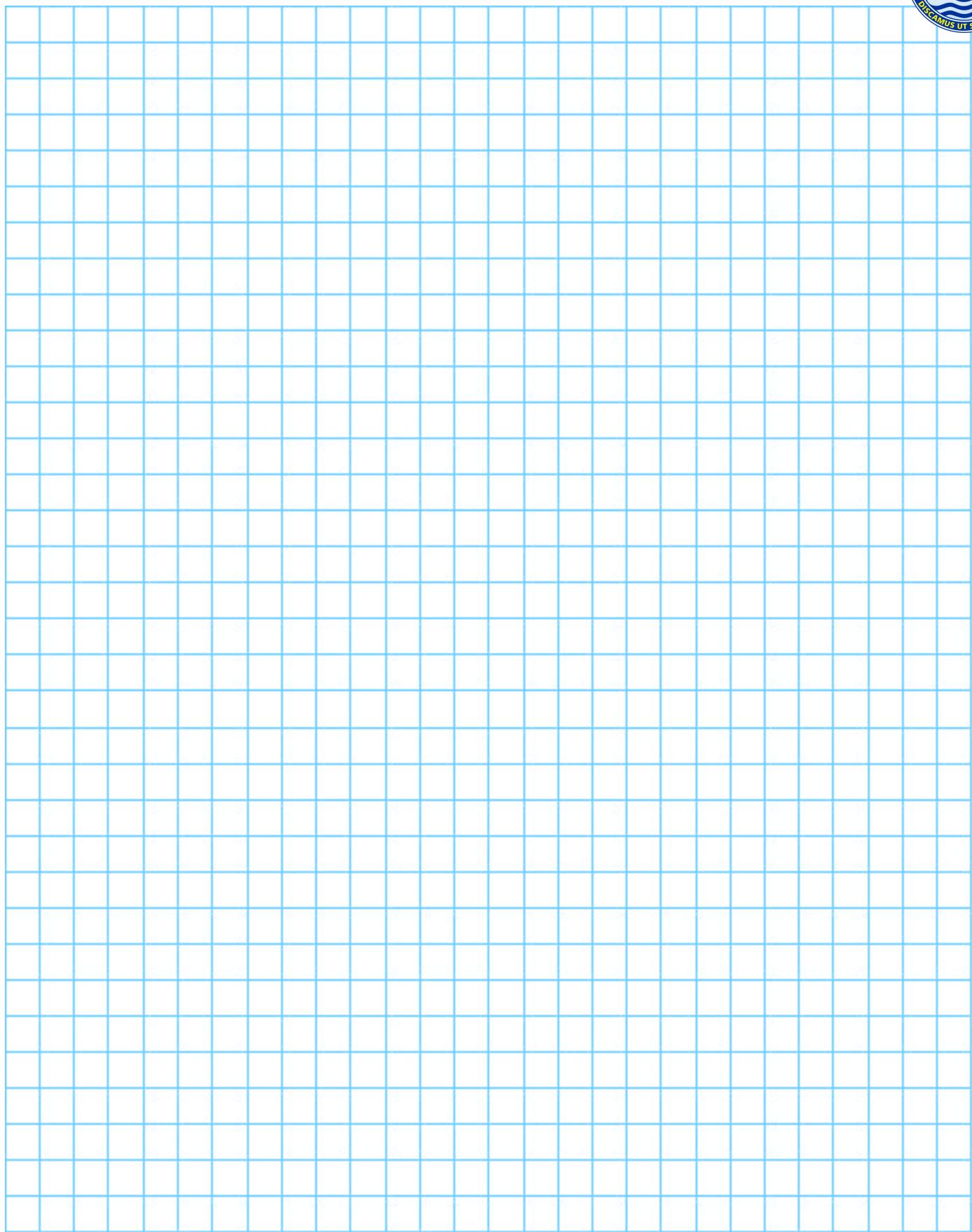
If you have any issues logging in, you must speak to your class teacher as soon as possible.

Username— `firstname.lastname@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

MENTAL STRATEGIES -
do these in your head

Q	Question	Answer
1	$\square + 7 = 10$	
2	What is double 9?	
3	Halve 40	
4	$111 + 30$	
5	$66 + 63$	
6	$17 + 9 = 17 + 3 + \square$	
7	$3 + 468$	
8	$33 + 70 = 30 + 70 + \square$	
9	Double 58	
10	What is half of 7?	
Total out of 10		

TIMESTABLES –
do these in your head

Q	Question	Answer
1	$6 \times 2 = \square$	
2	$36 \div 6 = \square$	
3	$5 \times \square = 15$	
4	$56 \div \square = 7$	
5	$3 \times 9 = \square$	
6	$5 \div 5 = \square$	
7	$\square \times 9 = 9$	
8	$\square \div 6 = 3$	
9	$8 \times 3 = \square$	
10	$18 \div 3 = \square$	
Total out of 10		

MONEY RIDDLES 1

Use the clues to find the correct set of coins from the 6 possibilities.

CHALLENGE A

- I am more than 10 pence.
- I am less than 20 pence.
- I have fewer than 3 coins.
- I make an even number of pence.

Who am I?



Problem solving!

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



Writing cheques

Write the missing numbers on these cheques.

The first one is done for you.



Pay <u>J. Baker</u>	Date: <u>30.04.08</u>
<u>Thirty-eight pounds and</u>	<u>£ 38 . 67</u>
<u>sixty-seven pence</u>	<u></u>
	<u>H. Norris</u>

Pay	<i>T. Jones</i>	Date: 30.04.08
<u>One hundred and two pounds and</u>		 <div style="border: 1px solid black; width: 150px; height: 50px; display: flex; align-items: center; justify-content: center; font-size: 2em; font-weight: bold;">£</div>
<u>seventy pence</u>		
		

Pay	<i>B. Torres</i>	Date: 30.04.08
<u>One hundred and twenty pounds and</u>		 <div style="border: 1px solid black; width: 150px; height: 50px; float: right; margin-top: -20px;"></div>
<u>seven pence</u>		
		



HOMEWORK 8: SEQUENCES

sequences: term to term rules

learn by heart

The numbers in a sequence are called **terms**

A sequence can be defined by a **term -to -term rule**, which tells us how to work out the next term in the sequence.

For an **arithmetic sequence**, the term to term rule involves only adding or subtracting a number.

1. Work out the next 3 terms in each of these arithmetic sequences:

a) 9, 11, 13, 15,,,

b) 128, 125, 122,,,

c) 15, 10, 5,,,

d) 2.3, 2.5, 2.7,,,

2. Fill in the missing terms in these arithmetic sequences:

a) 17, 15, 13, ___, 9, 7, 5, ___, 1

b) -10, -7, -4, ___, 2, 5, 8, ___, ___,



Problem solving!

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

These patterns are made from sticks



Pattern 1



Pattern 2



Pattern 3

(a) Draw pattern 4

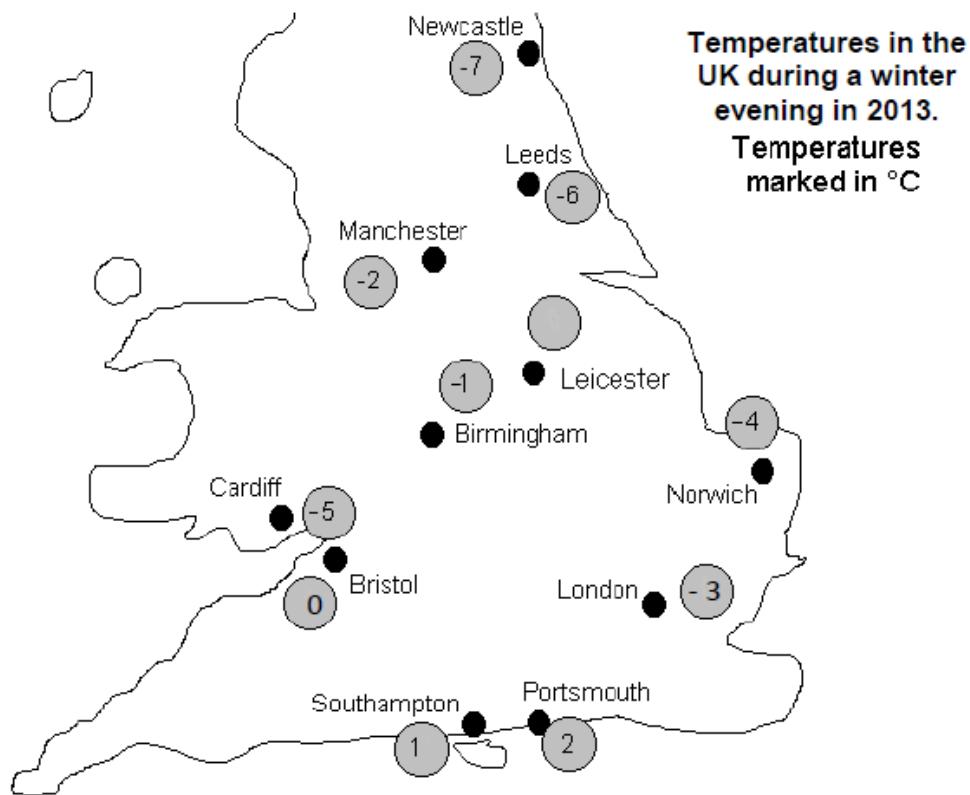
(b) Draw pattern 5

(c) How many sticks will there be in pattern 6?

(d) How many sticks will there be in pattern 10?



HOMEWORK 9: REAL LIFE MATHS



Section A: Decide which city is warmer or colder.

	Which city is warmer?
Cardiff or Southampton	
Portsmouth or London	
Manchester or Bristol	
Birmingham or Cardiff	
Newcastle or Leeds	

	Which city is colder?
Southampton or Leeds	
Bristol or Portsmouth	
Cardiff or Leeds	
Manchester or London	
Birmingham or Bristol	

Section B: Use the temperatures above to answer the following questions.

- 1) Which city was the coldest that evening?
- 2) Work out the difference between the highest and lowest temperature.
- 3) The temperature in Leicester was 10°C lower than the temperature in Portsmouth. Include the temperature of Leicester on the map.
- 4) The following evening the temperature in Manchester fell by 6°C . What was the temperature in Manchester the following evening?



The table shows the minimum and maximum daily temperatures in six cities in the USA in January.

City	Minimum °C	Maximum °C
New York	0°C	10°C
Los Angeles	8°C	18°C
Chicago	-4°C	8°C
Houston	11°C	20°C
Boston	-2°C	13°C
Anchorage	-12°C	-5°C


 LOOK

 N7c, N7a,
 G2, G25

(a) Which city recorded the lowest **minimum** temperature?

 °C
 (1)

(b) What is the difference in °C between Boston's minimum and maximum temperature?

 °C
 (1)

(c) What is the difference in °C between Anchorage's minimum and maximum temperature?

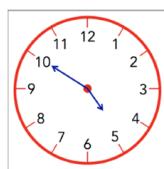
 °C
 (1)



HOMEWORK 10: NUMERACY

MENTAL STRATEGIES -

do these in your head



Q	Question	Answer
1	$1 + \square = 20$	
2	Double 54	
3	$22 + 10$	
4	$44 - 40$	
5	$7 = 2 + \square$	
6	$75 - 11 = 75 -$ $5 - \square$	
7	$6 + 6 + 6 + 6 +$ $6 = 6 \times \square$	
8	What is the time on the clock?	pm
9	Double 7	
10	What is half of 44?	
Total out of 10		

TIMESTABLES –

do these in your head

Q	Question	Answer
1	$6 \times 6 = \square$	
2	$2 \div 2 = \square$	
3	$6 \times \square = 12$	
4	$40 \div \square = 5$	
5	$1 \times 9 = \square$	
6	$40 \div 8 = \square$	
7	$\square \times 7 = 49$	
8	$\square \div 3 = 1$	
9	$2 \times 2 = \square$	
10	$48 \div 6 = \square$	
Total out of 10		

MONEY RIDDLES 2

Use the clues to find the correct set of coins from the 6 possibilities.

CHALLENGE A

- I am more than 20 pence.
- All my coins are the same color.
- All of my coins have the same value.
- I am less than 50 pence.

Who am I?



rounding to the nearest 10, 100, 1000



examples

Round 45 to the nearest 10

$$= 50$$

Round 573 to the nearest 100

$$= 600$$

Round 2,035 to the nearest 1,000

$$= 2000$$

exercise 1g

1. Round these numbers to the nearest 10:

a) 64

c) 108

e) 15

g) 775

b) 92

d) 203

f) 596

h) 1025

2. Round these numbers to the nearest 100:

a) 556

c) 76

e) 3045

g) 14,250

b) 289

d) 1450

f) 56,980

h) 7,500

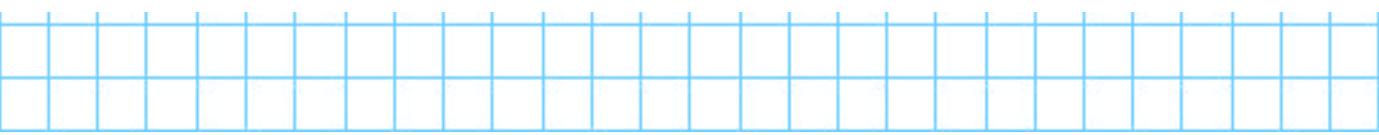
3. True or false: 426 rounded to the nearest hundred is 500



4. True or false: 91 rounded to the nearest hundred is 100



5. True or false: 19 rounded to the nearest 100 is 0

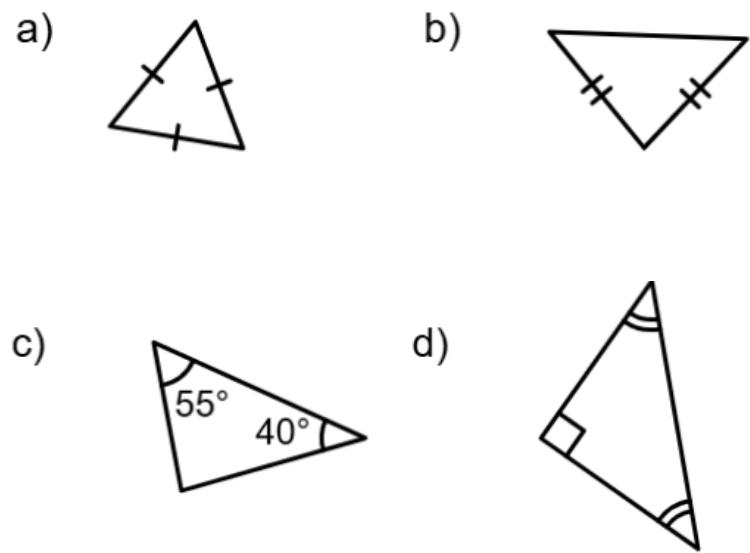
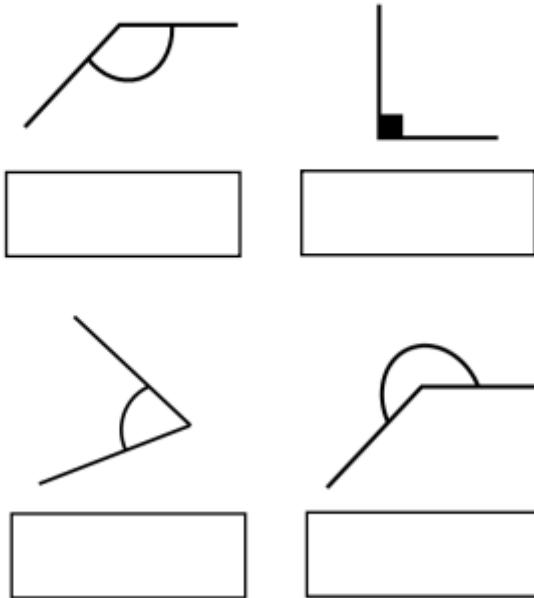




HOMEWORK 11: ANGLES

1. Label these angles as acute, right, obtuse or reflex:

Decide whether each triangle is isosceles, scalene or equilateral:



Which of these is impossible?

A triangle
with 3 acute
angles

A triangle
with an obtuse
angle

A triangle
with a reflex
angle

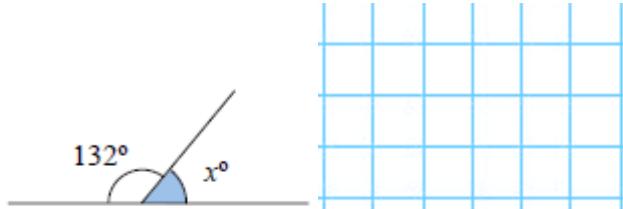
A triangle
with a right
angle

Given that angles on a point sum to 180°

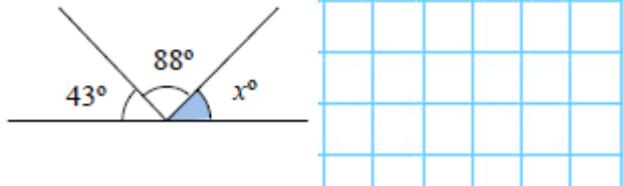
Find the missing angles below

Ui

A1 Find the value x

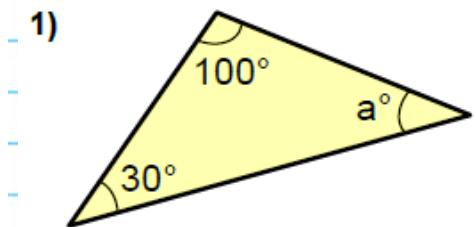


B1 Find the value x

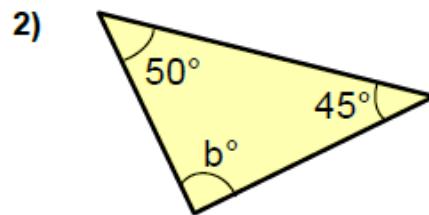


Given that angles in a triangle sum to 180°

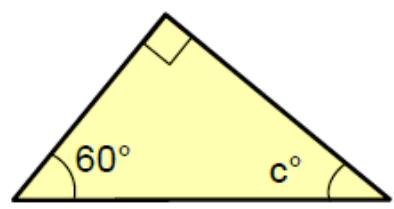
Find the missing angles below



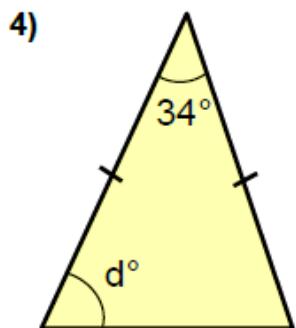
$$a =$$



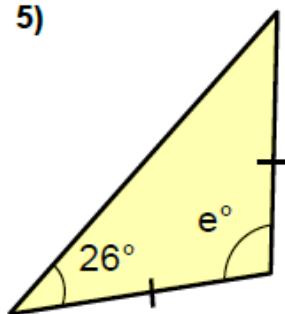
$$b =$$



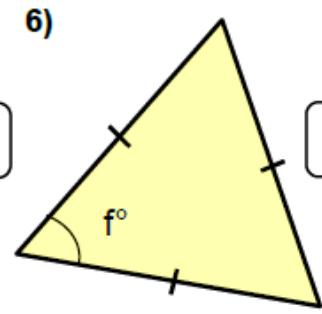
$$c =$$



$$d =$$



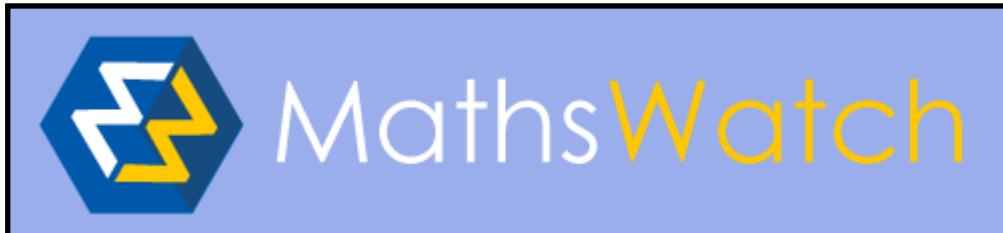
$$e =$$



$$f =$$



HOMEWORK 12: MATHSWATCH



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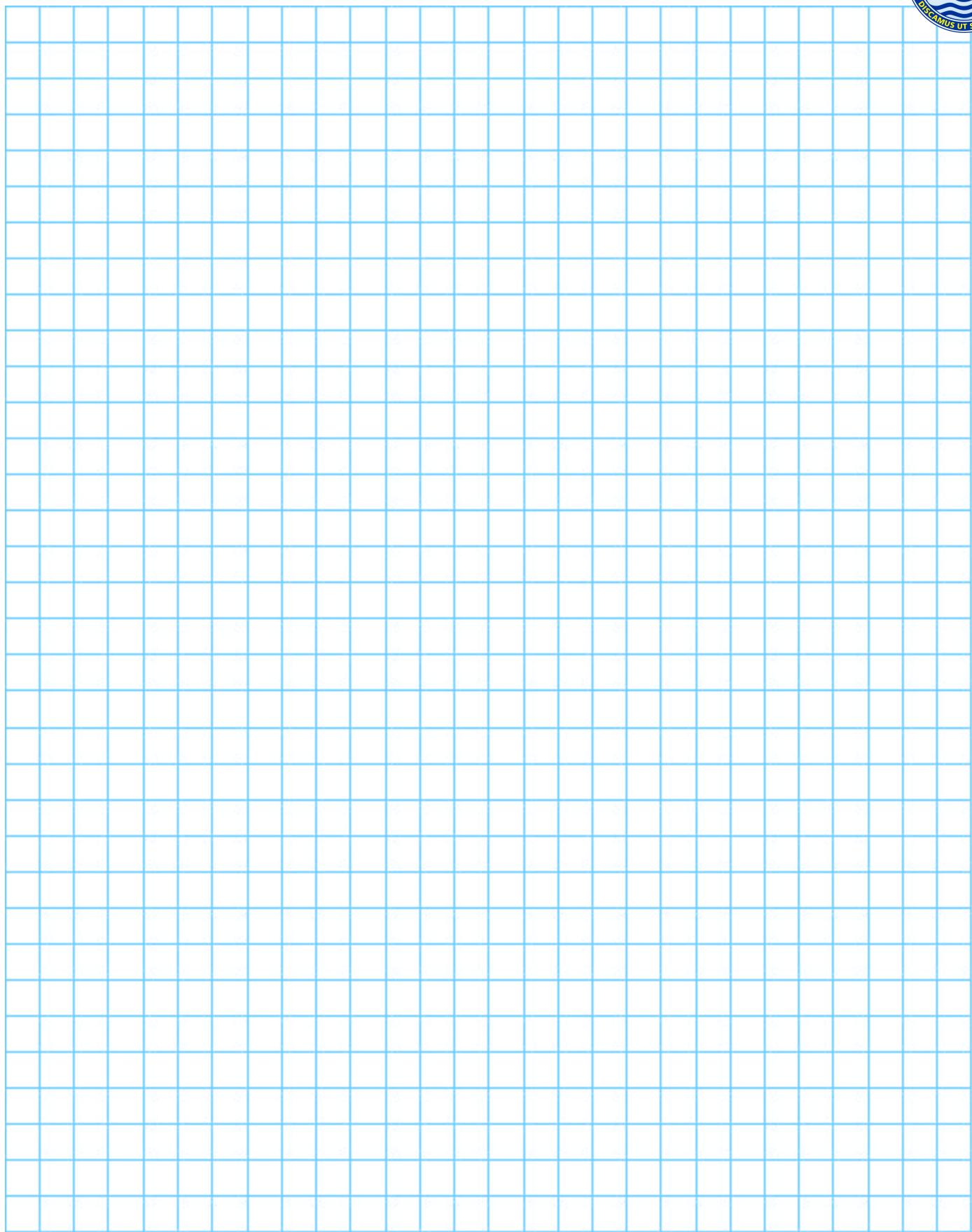
If you have any issues logging in, you must speak to your class teacher as soon as possible.

Username— `firstname.lastname@benjamin`

Password— `your DOB (format: monthDYYYY)`

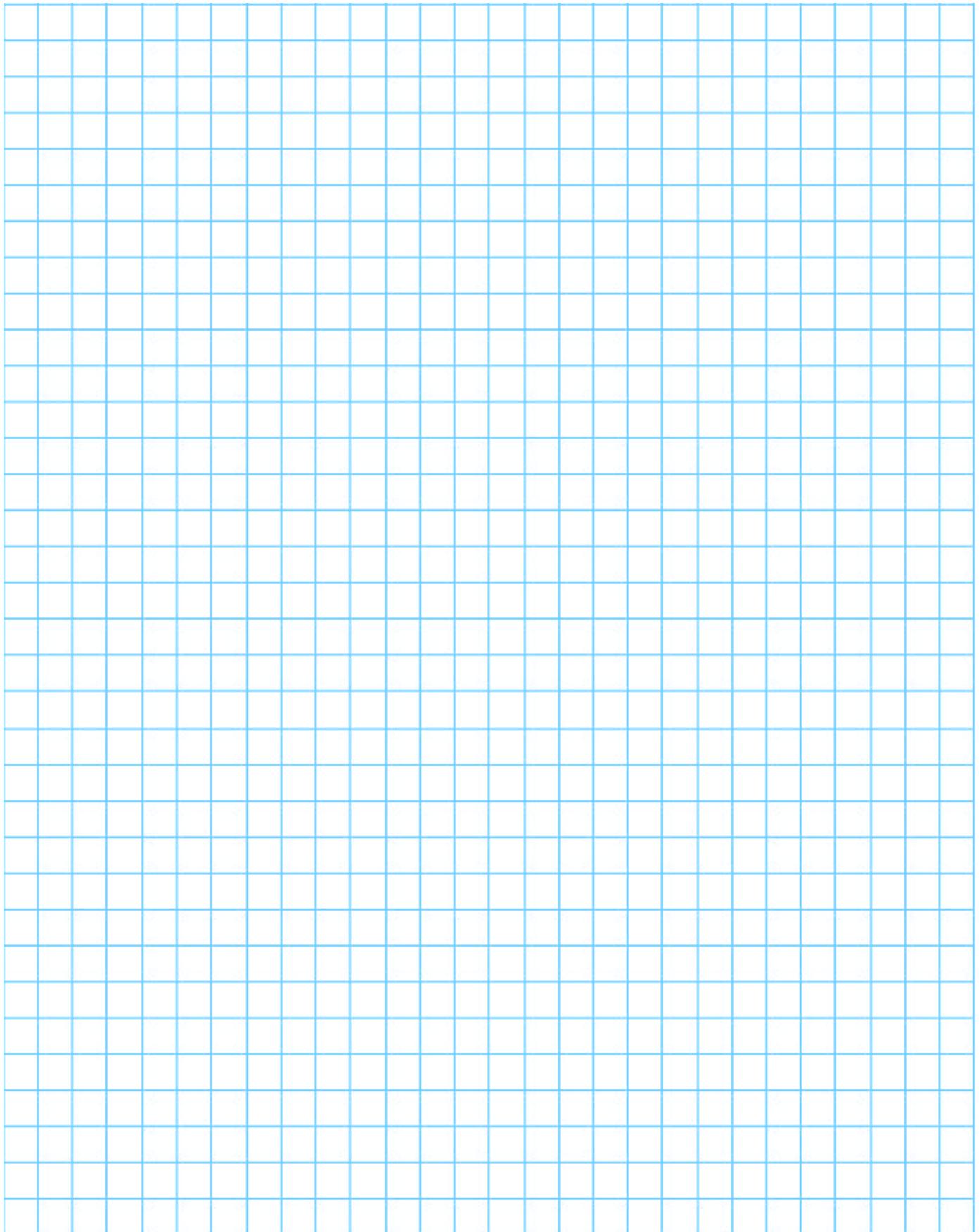
If you need a printed copy of this homework task, make sure you speak to your class teacher before the due date and they will print a copy for you to complete.

Additional working out space:

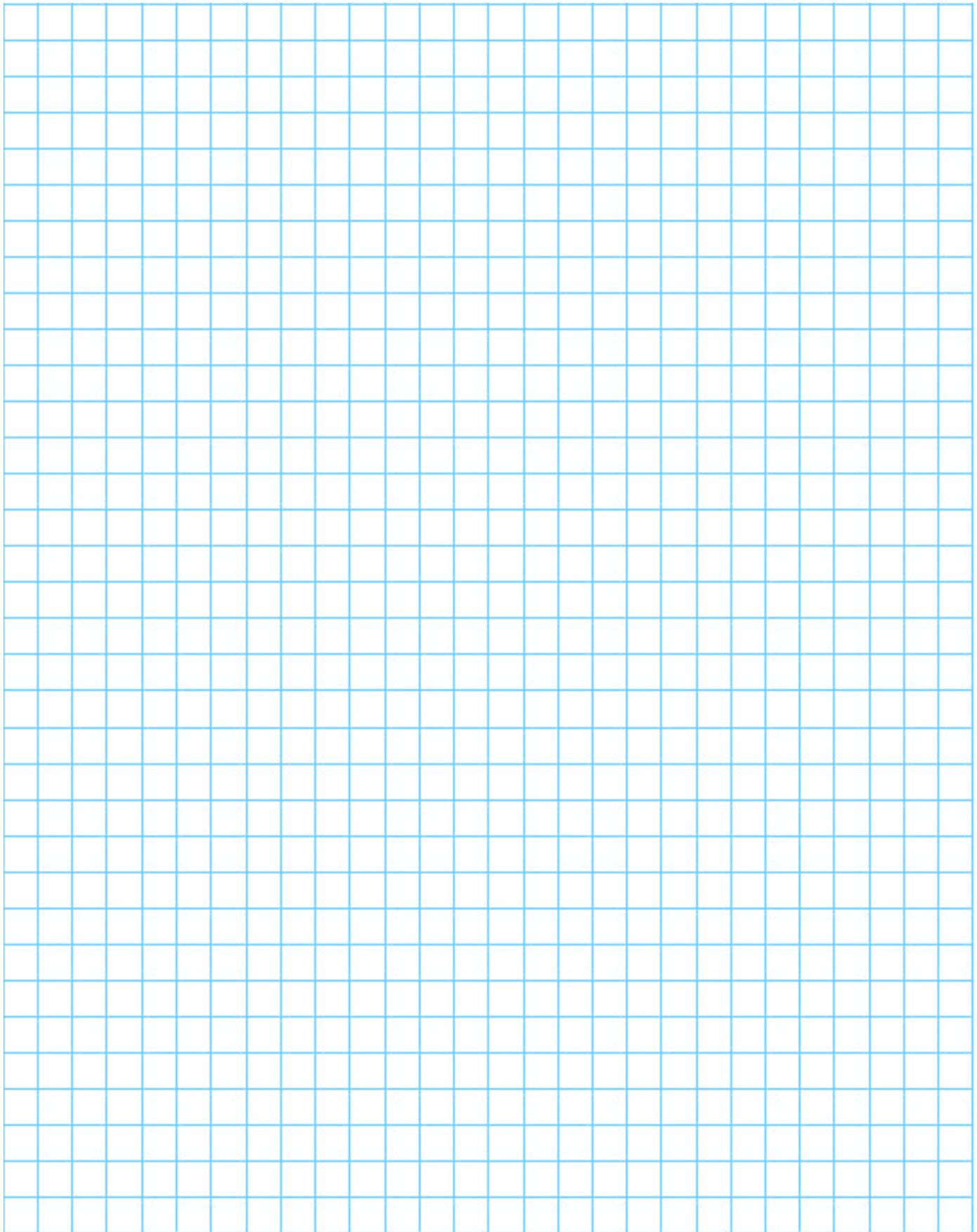




Additional working out space:



Additional working out space:



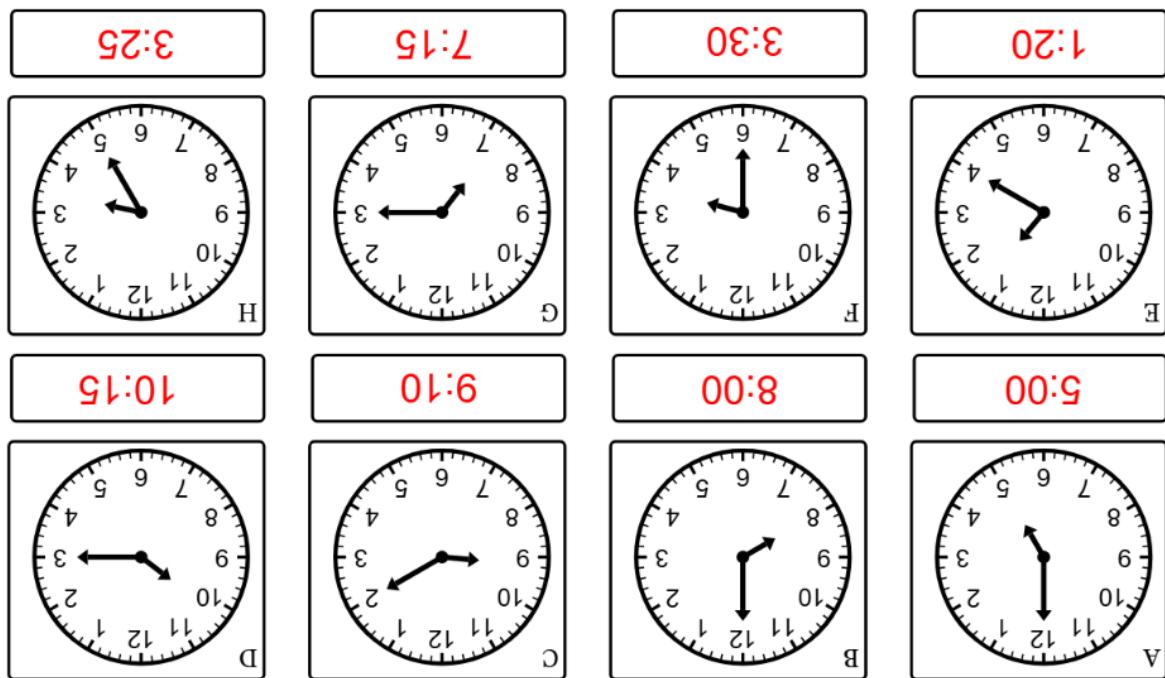
ANSWERS—WEEK 1

×	2	8	4	12	7	11	9	3	6	5	10
3	6	24	12	36	21	33	27	9	18	15	30
6	12	48	24	72	42	66	54	18	36	30	60
8	16	64	32	96	56	88	72	24	48	40	80
4	8	32	16	48	28	44	36	12	24	20	40
10	20	80	40	120	70	110	90	30	60	50	100
11	22	88	44	132	77	121	99	33	66	55	110
9	18	72	36	108	63	99	81	27	54	45	90
5	10	40	20	60	35	55	45	15	30	25	50
7	14	56	28	84	49	77	63	21	42	35	70
12	24	96	48	144	84	132	108	36	72	60	120
2	4	16	8	24	14	22	18	6	12	10	20

x	10	20	30	40	100	200	300	400
2	20	40	60	80	50	100	150	200
3	30	60	90	120	70	120	160	200
4	40	80	90	120	80	120	160	200
5	50	100	100	150	50	100	150	200
10	100	200	300	400	100	200	300	400

10	$\square + 46 = 100$	54
9	$7 + 3$	10
8	Draw hands on the clock face showing 10:10 See clock above	am
7	$73 + 73 = \square \times 73$	2
6	$58 - 11 = 58 - 8 - \square$	3
5	$6 = 1 + \square$	5
4	$29 - 10$	19
3	$112 + 10$	122
2	What is double 55?	110
1	$3 + 17$	20
	Answer	

10	$54 \div 6 = \square$	9
9	$5 \times 7 = \square$	35
8	$\square \div 2 = 3$	6
7	$\square \times 4 = 4$	1
6	$18 \div 6 = \square$	3
5	$7 \times 6 = \square$	42
4	$24 \div \square = 4$	6
3	$4 \times \square = 28$	7
2	$24 \div 4 = \square$	6
1	$6 \times 7 = \square$	42
	Answer	



1. Write the correct time under each clock

ANSWERS—WEEK 2

6235 → 6	8302 → 8	1428 → 1	389 → 0
----------	----------	----------	---------

4) Write down which digit is in the **thousands** place:

6035 → 0	3502 → 5	1238 → 2	839 → 8
----------	----------	----------	---------

3) Write down which digit is in the **hundreds** place:

2743 → 4	5194 → 9	8320 → 2	307 → 0
----------	----------	----------	---------

2) Write down which digit is in the **tens** place:

1267 → 7	4235 → 5	3190 → 0	8302 → 2
----------	----------	----------	----------

1) Write down which digit is in the **ones** place:

1	61 903	600
4	45 170	40 000
9	12 934	900
20	94 023	20

7	67 062	7000
4	49 996	40 000
2	33 026	20
6	79 621	600

What is the value of the...

2	9 872	80
3	3 908	3000
5	1 053	50
9	7 892	90

6	462	60
1	821	1
4	649	40
8	87	80

What is the value of the...

..... f) Three hundred and six thousand and thirty nine 306,039

..... e) Four million, two hundred and three thousand 4,203,000

..... d) Ninety four million, three thousand and six 94,003,006

..... c) Twenty six thousand and four 26,004

..... b) Five hundred and eighteen thousand 518,000

..... a) Three million and twenty two 3,000,022

Write in digits:

535	592	530	528
427	476	562	460

Who am I?

If you round me to the nearest 100, I become 500.

My tens digit is a multiple of 3.

2) I am not a multiple of 10.

962	583	835	684
782	495	328	

Who am I?

I am not a multiple of 5.

My hundreds digit is even.

I am greater than 350.

1) I am a 3 digit number.

ANSWERS—WEEK 4

x	50	20	60	50	100	60	40	120	60	150	90	180	80	240	120	200	4	200	120	250	150	5	200	600	200	500	10
---	----	----	----	----	-----	----	----	-----	----	-----	----	-----	----	-----	-----	-----	---	-----	-----	-----	-----	---	-----	-----	-----	-----	----

X	7	2	12	4	6	8	11	3	5	9	10	4	28	8	48	16	24	32	44	12	20	36	40	7	49	14	84	24	144	48	72	96	132	36	60	108	120	2	14	4	24	8	12	16	22	6	10	18	20	5	35	10	60	20	30	40	55	15	45	50	77	22	132	44	66	88	121	33	55	99	110	11	63	18	108	36	54	72	99	27	45	81	90	3	21	6	36	12	18	24	33	9	15	27	30	6	42	12	72	24	36	48	66	18	30	54	60	10	70	20	120	40	60	80	110	30	50	90	100
4	28	8	48	16	24	32	44	12	20	36	40	7	49	14	84	28	42	56	77	21	35	63	70	12	84	24	144	48	72	96	132	36	60	108	120	2	14	4	24	8	12	16	22	6	10	18	20	5	35	10	60	20	30	40	55	15	45	50	77	22	132	44	66	88	121	33	55	99	110	11	63	18	108	36	54	72	99	27	45	81	90	3	21	6	36	12	18	24	33	9	15	27	30	6	42	12	72	24	36	48	66	18	30	54	60	10	70	20	120	40	60	80	110	30	50	90	100		

a) $100 \div 8$ 12.5 c) $211 \div 5$ 42.2 e) $941 \div 5$ 188.2

Calculate the following. The answers are all decimals:

b) $2766 \div 6$ 461 d) $665 \div 5$ 133 f) $20,095 \div 5$ 4019

a) $448 \div 8$ 56 c) $468 \div 9$ 52 e) $639 \div 9$ 71

Calculate the following. The answers are all integers:

ANSWERS—WEEK 5

<p>a) Work out the mode:</p> <p>7 6 7 4 12 11 6</p> <p>Mode = 7 X</p> <p>The number 6 also appears twice, so there are two modes: 6 and 7</p> <p>The median is 54</p> <p>The numbers are not in order.</p>	<p>c) Work out the median:</p> <p>0.9 0.9 0.9 1.3 1.3 1.3</p> <p>Range = 96 - 78 = 22 X</p> <p>The correct answer to the subtraction is 18, not 22.</p> <p>With two middle numbers, add and then divide by 2 to find the median (1.1)</p>
---	--

Harry has tried to work out some averages and ranges, but has got all of them wrong! Work out what is wrong with each of Harry's answers.

What's wrong?

<p>a) 9 4 6 6 4 7 6 2</p> <p>Mode</p>	<p>b) 34 36 43 41 34</p> <p>Median</p>
<p>c) 2 3 4 4 4 5 6 7</p> <p>Range</p>	<p>d) 2 3 6 7 7 8</p> <p>Mean</p>
<p>e) 21 15 19 31 32 19</p> <p>Median</p>	<p>f) 320 331 327 313 326</p> <p>Range</p>
<p>g) 24 15 16 24 17</p> <p>Mean</p>	<p>h) 35 30 26 36 17 25</p> <p>Mode</p>
	<p>19.2</p> <p>19.2</p> <p>No mode</p>

For each set of data, work out the average or range:

1	4, 2, 8, 3, 9	The range is 5	True	False	1
2	5, 7, 8, 11, 12	The median is 8	True	False	2
3	9, 6, 6, 3, 4	The mode is 6	True	False	3
4	10, 1, 9, 4	The mean is 6	True	False	4
5	5, 6, 6, 8, 8, 9	The median is 6 and 8	True	False	5
6	1, 2, 3, 5, 6, 9	The median is 4	True	False	6
7	2, 3, 4	The mean, mode and median are all 3	True	False	7
8	5, 8, 2, 6, 3	There is no mode	True	False	8
9	8, 11, 6, 4, 6	The mean and the range are the same	True	False	9

For each statement, circle the correct response.

True or False? Averages and Range

ANSWERS—WEEK 7

6	$18 \div 3 = \square$	10
24	$8 \times 3 = \square$	9
18	$\square \div 6 = 3$	8
1	$\square \times 9 = 9$	7
1	$5 \div 5 = \square$	6
27	$3 \times 9 = \square$	5
8	$56 \div \square = 7$	4
3	$5 \times \square = 15$	3
6	$36 \div 6 = \square$	2
12	$6 \times 2 = \square$	1
Answer	Question	Q

3.5	What is half of 7?	10
116	Double 58	9
3	$33 + 70 = 30 + 70 + \square$	8
471	$3 + 468$	7
6	$17 + 9 = 17 + 3 + \square$	6
129	$66 + 63$	5
141	$111 + 30$	4
20	Half 40	3
18	What is double 9?	2
3	$\square + 7 = 10$	1
Answer	Question	Q

• $\text{£ } 102 = 70$
e.g., for the first mark accept
Condone any unambiguous notation
! Non-standard notation

$\text{£ } 120.07$

$\text{£ } 102.70$

Who am I? **Answer: 1) 12p**

- I make an even number of pence.
- I have fewer than 3 coins.
- I am less than 20 pence.
- I am more than 10 pence.

CHALLENGE A

Use the clues to find the correct set of coins from the eight possibilities.



MONNEY RIDDLLES 1 ANSWERS

ANSWERS—WEEK 8

(d) 21 sticks

(c) 13 sticks

Pattern 5



(b)

Pattern 4



(a)

b) $-10, -7, -4, \underline{-1}, 2, 5, 8, \underline{11}, \underline{14}$

a) $17, 15, 13, \underline{11}, 9, 7, 5, \underline{3}, 1$

2. Fill in the missing terms in these arithmetic sequences:

d) $2.3, 2.5, 2.7, \underline{2.9}, \underline{3.1}, \dots, \underline{3.3}$

c) $15, 10, 5, \dots, \underline{0}, \dots, \underline{-5}, \dots, \underline{-10}$

b) $128, 125, 122, \underline{119}, \dots, \underline{116}, \dots, \underline{113}$

a) $9, 11, 13, 15, \underline{17}, \dots, \underline{19}, \dots, \underline{21}$

1. Work out the next 3 terms in each of these arithmetic sequences:

Exercise 6

ANSWERS—WEEK 9

temperature in Manchester the following evening? - 8°C

2) Work out the difference between the highest and lowest temperature. 9°C

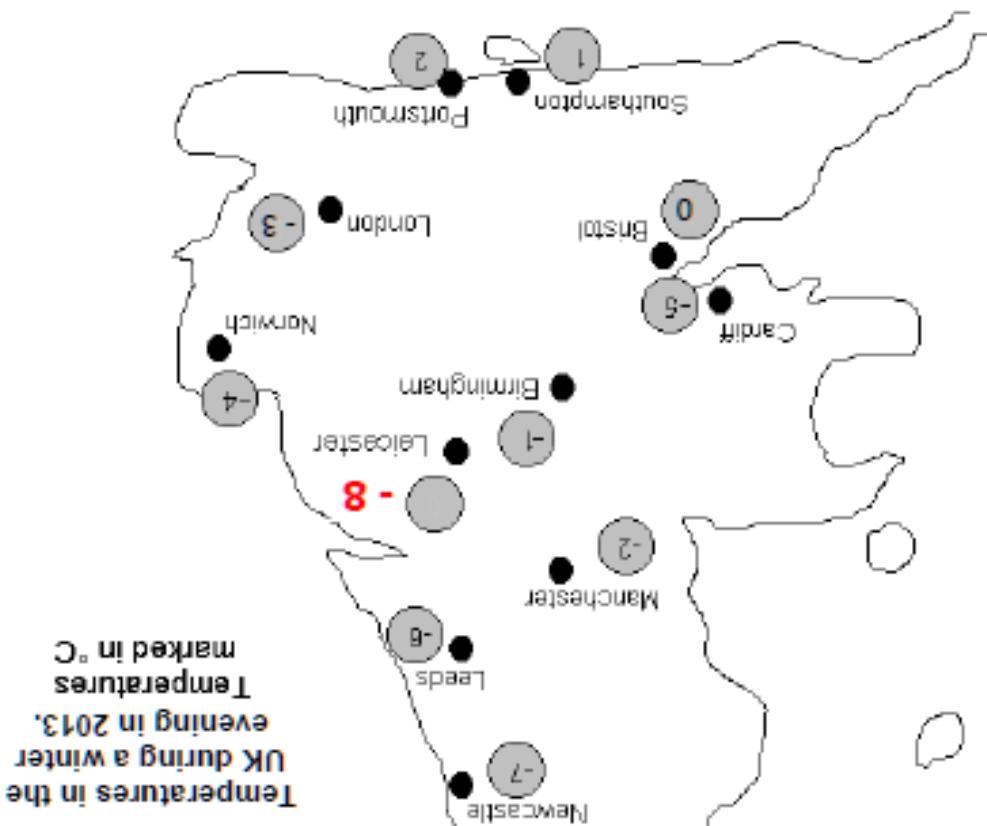
3) The temperature in Leicester was 10°C lower than the temperature in Portsmouth. Include the temperature of Leicester on the map. -8°C

4) The following evening the temperature in Manchester fell by 6°C . What was the

Section B: Use the temperatures above to answer the following questions.

Which city is warmer?	Which city is colder?
Cardiff or Southampton	Southampton or Leeds
Portsmouth or London	Bristol or Portsmouth
Manchester or Bristol	Bristol or Cardiff
Leeds or Cardiff	Leeds
London or Manchester	London
Birmingham or Bristol	Birmingham
Leeds or Newcastle or Leeds	Birmingham

Section A: Decide which city is warmer or colder.



(1)

°C

t

temperature?

(c) What is the difference in °C between Anchorage's minimum and maximum

(1)

°C

15

temperature?

(b) What is the difference in °C between Boston's minimum and maximum

(1)

Anchorage

(a) Which city recorded the lowest minimum temperature?

City	Minimum °C	Maximum °C	Ancorage
Boston	-2°C	13°C	
Houston	11°C	20°C	
Chicago	-4°C	8°C	
Los Angeles	8°C	18°C	
New York	0°C	10°C	
			-12°C
			-5°C

in the USA in January.

The table shows the minimum and maximum daily temperatures in six cities

1.

ANSWERS—WEEK 10

		8
		4
		3
		7
		5
		6
		5
		4
		2
		1
		36
Answer	Question	

		22
		14
		4:50 pm
		5
		6
		6
		5
		4
		32
		19
Answer	Question	

1. Round these numbers to the nearest 10:
 a) 64 **60** c) 108 **110** e) 15 **20** g) 775 **780**

2. Round these numbers to the nearest 100:
 b) 92 **90** d) 203 **200** f) 596 **600** h) 1025 **1030**

3. True or false: 426 rounded to the nearest hundred is 500 **False**

4. True or false: 91 rounded to the nearest hundred is 100 **True**

5. True or false: 19 rounded to the nearest 100 is 0 **True**



Who am I? **Answer: 1) 40p**

- I am less than 50 pence.
- All of my coins have the same value.
- All my coins are the same colour.
- I am more than 20 pence.

CHALLENGE A



MONEY RIDDLES 2 ANSWERS

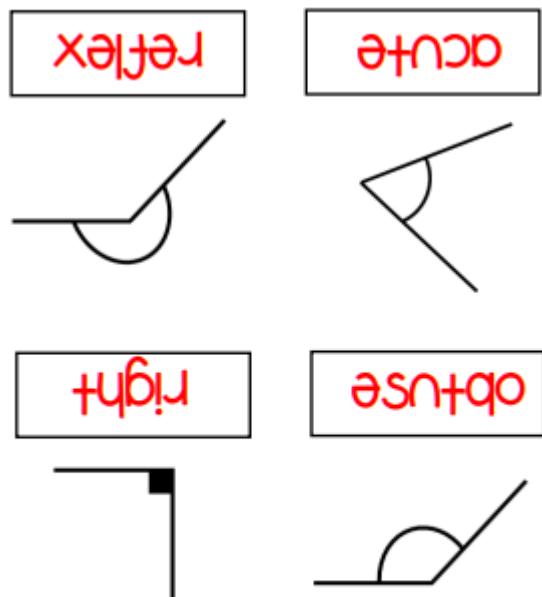
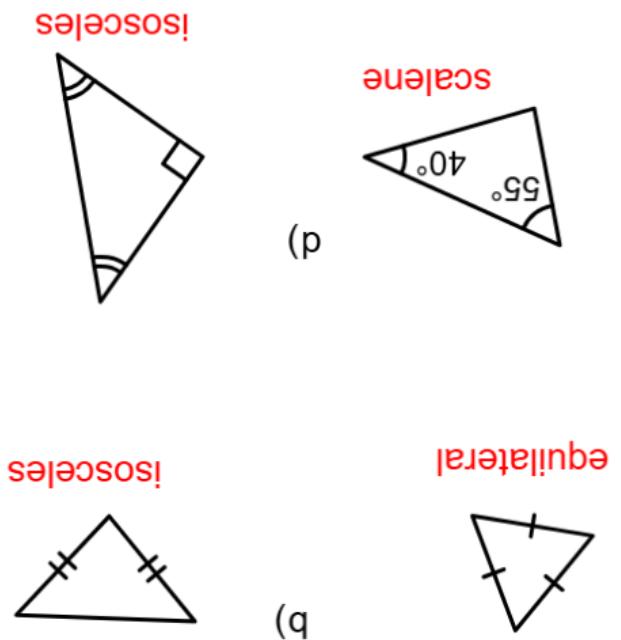
ANSWERS—WEEK 11

B1 Find the value of x

A1 Find the value of x

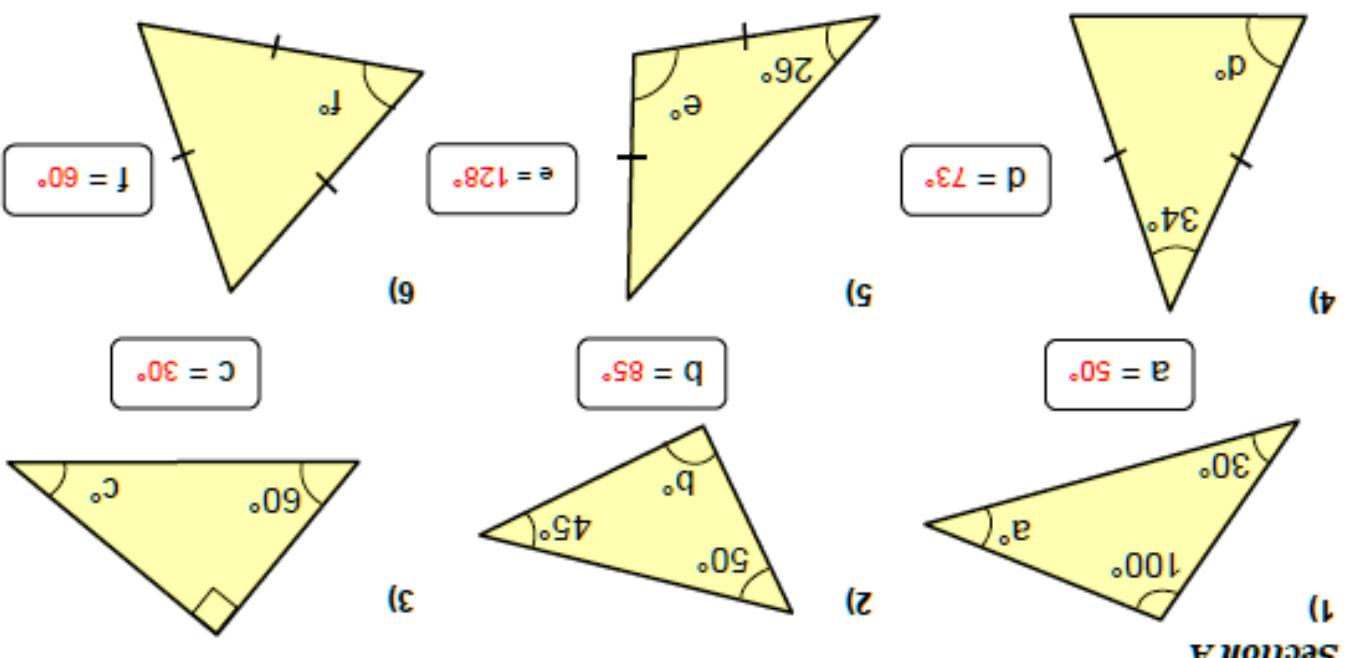
A triangle with a right angle	A triangle with a reflex angle
A triangle with 3 acute angles	A triangle with an obtuse angle

8 Which of these is impossible?



1. Label these angles as acute, right, obtuse or reflex:

Section A



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

