WCSA

Mathematics

Home Learning Book – Learning Cycle 1

@WorleMaths

Mathematics Year 7 Sets 5 & 6

Name: _____ Tutor Group: ___

Maths Teacher(s): _____

Learning Cycle 1

	Cycle.Week						
Sep 2018	1.1	3	4	5	6	7	
	1.1	10	11	12	13	14	Week 1 HW due
	1.2	17	18	19	20	21	Week 2 HW due
	1.3	24	25	26	27	28	Week 3 HW due
Oct 2018	1.4	1	2	3	4	5	Week 4 HW due
	1.5	8	9	10	11	12	Week 5 HW due
	1.6	15	16	17	18	19	Week 6 HW due
		22	23	24	25	26	Half Term
		29	30	31	1	2	Half Term
Nov 2018	1.7	5	6	7	8	9	Week 7 Hegarty Revision due (×4)
	1.8	12	13	14	15	16	Assessment Week
	1.9	19	20	21	22	23	Super Teaching Week

- During the Assessment Week (week 8), students will be assessed on the material that they have covered the previous seven weeks.

- The questions in the homework are mainly consolidation of work covered in previous years and of key skills. However, if there are any topics students are not understanding there are Hegarty Maths video clips to watch that explain that topic. Please see the opposite page for further information.
- In week 7 teachers will be checking that all 4 Hegarty Maths revision templates have been completed. The idea is that these are completed throughout the cycle and not all left until week 7. Please see the 'Revision Guide' document to inform what topics should be covered as part of this revision.

- Alongside completing the tasks in this booklet we also expect students to be making regular use of the Hegarty Maths website for independent study.

  This can be to go over things covered in class, to revise for upcoming tests or to work on areas of weakness that were identified in previous tests.

Cycle 1 Homework help

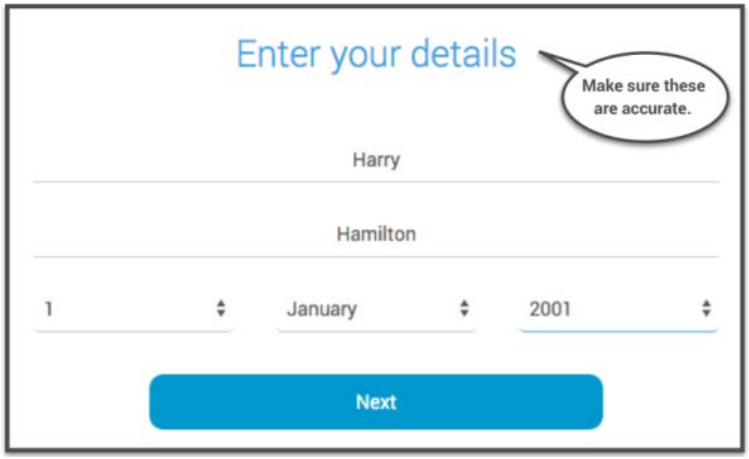
Please use the clip numbers in the table below to look up areas of weakness on the Hegarty Maths website.

Question	Topic	Hegarty Maths clip number
1, 2	Identifying place value in 4 digit numbers	13, 14
3, 4	Finding 100 more or less than a number	1, 18
5, 6	Multiplication facts (up to 12 x 12)	6, 10
7, 8	Addition of 3 digit numbers	18, 20
9, 10	Subtraction of 3 digit numbers	19, 20
11, 12	Rounding to the nearest 10	17
13, 14	Equivalent fractions and decimals	52, 73, 74
15, 16	Dividing by 10	16
17, 18	Writing numbers in words up to 1000	13
19, 20	Division facts	11

To log in to Hegarty Maths, go to https://hegartymaths.com/

Click on the green 

button and select 'Student Log in'.



Teachers do not have access to student passwords. If you forget your password please click on 'request a password reset' and speak to your teacher during your next lesson.

Cycle 1 week 1

Question 1 Write down the value of the underlined figure 5<u>4</u>73	**Question 2** Write down the value of the underlined figure 30<u>5</u>2	**Question 3** What is 100 less than 2277?	**Question 4** What is 100 more than 745?
Question 5 Work out 4 × 5 =	**Question 6** Work out 9 × 10 =	**Question 7** Work out 416 + 150 =	**Question 8** Work out 797 + 304 =
Question 9 Work out 853 - 535 =	**Question 10** Work out 656 - 248 =	**Question 11** Round 916 to the nearest 10	**Question 12** Round 148 to the nearest 10
Question 13 Express 0.5 as a fraction	**Question 14** Express $\frac{1}{4}$ as a decimal	**Question 15** Work out 6700 ÷ 10 =	**Question 16** Work out 4100 ÷ 10 =
Question 17 Write in words 139	**Question 18** Write in words 282	**Question 19** Work out 63 ÷ 9 =	**Question 20** Work out 6 ÷ 2 =

SKILLS CHECK

Score

You must show your workings here:

Workings will earn method marks in your exams; get into good habits now by showing everything you have done.

Parent/Carer Comment:

Question 1 Write down the value of the underlined figure 5425	**Question 2** Write down the value of the underlined figure 3052	**Question 3** What is 100 less than 7856?	**Question 4** What is 100 more than 4032?
Question 5 Work out 9 × 4 =	**Question 6** Work out 12 × 6 =	**Question 7** Work out 713 + 353 =	**Question 8** Work out 465 + 447 =
Question 9 Work out 732 - 629 =	**Question 10** Work out 271 - 223 =	**Question 11** Round 415 to the nearest 10	**Question 12** Round 1907 to the nearest 10
Question 13 Express 0.25 as a fraction	**Question 14** Express $\frac{3}{4}$ as a decimal	**Question 15** Work out 1700 ÷ 10 =	**Question 16** Work out 50 ÷ 10 =
Question 17 Write in words 477	**Question 18** Write in words 914	**Question 19** Work out 48 ÷ 12 =	**Question 20** Work out 24 ÷ 4 =

SKILLS CHECK

Score

You must show your workings here:

Workings will earn method marks in your exams; get into good habits now by showing everything you have done.

Parent/Carer Comment:

Question 1 Write down the value of the underlined figure 6<u>5</u>05	**Question 2** Write down the value of the underlined figure 330<u>5</u>	**Question 3** What is 100 less than 153?	**Question 4** What is 100 more than 4485?
Question 5 Work out 12 × 4 =	**Question 6** Work out 4 × 9 =	**Question 7** Work out 514 + 149 =	**Question 8** Work out 433 + 234 =
Question 9 Work out 722 - 149 =	**Question 10** Work out 405 - 125 =	**Question 11** Round 63 to the nearest 10	**Question 12** Round 595 to the nearest 10
Question 13 Express 0.1 as a fraction	**Question 14** Express $\frac{1}{2}$ as a decimal	**Question 15** Work out 90 ÷ 10 =	**Question 16** Work out 4800 ÷ 10 =
Question 17 Write in words 246	**Question 18** Write in words 427	**Question 19** Work out 12 ÷ 3 =	**Question 20** Work out 20 ÷ 5 =

SKILLS CHECK

Score

You must show your workings here:

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Parent/Carer Comment:

Question 1 Write down the value of the underlined figure 11<u>2</u>0	**Question 2** Write down the value of the underlined figure 30<u>5</u>1	**Question 3** What is 100 less than 7808?	**Question 4** What is 100 more than 365?
Question 5 Work out 11 × 5 =	**Question 6** Work out 2 × 5 =	**Question 7** Work out 307 + 208 =	**Question 8** Work out 454 + 175 =
Question 9 Work out 496 - 150 =	**Question 10** Work out 851 - 118 =	**Question 11** Round 574 to the nearest 10	**Question 12** Round 1652 to the nearest 10
Question 13 Express 0.9 as a fraction	**Question 14** Express $\frac{3}{10}$ as a decimal	**Question 15** Work out 7100 ÷ 10 =	**Question 16** Work out 8400 ÷ 10 =
Question 17 Write in words 571	**Question 18** Write in words 563	**Question 19** Work out 28 ÷ 7 =	**Question 20** Work out 12 ÷ 4 =

SKILLS CHECK

Score

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Parent/Carer Comment:

Question 1 Write down the value of the underlined figure 1<u>2</u>05	**Question 2** Write down the value of the underlined figure <u>9</u>013	**Question 3** What is 100 less than 232?	**Question 4** What is 100 more than 1120?
Question 5 Work out 9 × 8 =	**Question 6** Work out 10 × 8 =	**Question 7** Work out 406 + 297 =	**Question 8** Work out 463 + 135 =
Question 9 Work out 826 - 180 =	**Question 10** Work out 805 - 767 =	**Question 11** Round 156 to the nearest 10	**Question 12** Round 1578 to the nearest 10
Question 13 Express 0.7 as a fraction	**Question 14** Express $\frac{4}{10}$ as a decimal	**Question 15** Work out 5100 ÷ 10 =	**Question 16** Work out 8800 ÷ 10 =
Question 17 Write in words 425	**Question 18** Write in words 744	**Question 19** Work out 22 ÷ 11 =	**Question 20** Work out 35 ÷ 5 =

SKILLS CHECK

Score

You must show your workings here:

Workings will earn method marks in your exams; get into good habits now by showing everything you have done.

Parent/Carer Comment:

Question 1 Write down the value of the underlined figure 2305	**Question 2** Write down the value of the underlined figure 4301	**Question 3** What is 100 less than 2005?	**Question 4** What is 100 more than 642?
Question 5 Work out 2 × 10 =	**Question 6** Work out 5 × 5 =	**Question 7** Work out 671 + 432 =	**Question 8** Work out 800 + 228 =
Question 9 Work out 484 - 135 =	**Question 10** Work out 860 - 851 =	**Question 11** Round 917 to the nearest 10	**Question 12** Round 576 to the nearest 10
Question 13 Express 0.6 as a fraction	**Question 14** Express $\frac{7}{10}$ as a decimal	**Question 15** Work out 60 ÷ 10 =	**Question 16** Work out 80 ÷ 10 =
Question 17 Write in words 276	**Question 18** Write in words 898	**Question 19** Work out 60 ÷ 12 =	**Question 20** Work out 25 ÷ 5 =

SKILLS CHECK

Score

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Parent/Carer Comment:

Revision – Week 7

In Week 7 we will collect 4 pages of revision.
These can be completed at any time during the cycle, but they will all be checked in Week 7.
Please plan your time carefully so that you meet this deadline.

You should choose topics from the list opposite which details what has been covered during this cycle.

Getting in to good revision habits is vital for success in GCSE maths.

Revision is most effective when it involves 'doing' – this approach is proven to aid retention and recall of information. This is why we are asking that you;

- Take notes from the videos on Hegarty Maths, writing down key information and examples.

- Write down your workings out for each quiz that you complete and mark this as you go, noting corrections for any questions that you got wrong.

- Record your quiz score and rate your confidence level.

If you can make the above a habit revision will be much easier for you when you are preparing for exams. We have provided an example of what good revision looks like.

Hegarty Maths also tracks everything that you do, so if you complete lots of revision from Y7 then by the time you get to Y11 it will be able to tell you your weaknesses; these can then form a big part of your final revision plan. The 'Fix Up 5' feature will give you questions and support on these.

As ever, if you have any questions please see your teacher well before the deadline.

Cycle 1 – Revision Guide

	Topic	☺ 😐 ☹	Hegarty Maths Clip Number(s)
UNIT 1			
1	Multiples		33
2	Factors		27
3	Common factors		31
4	Prime numbers		28
5	Square numbers		99
6	Cube numbers		100
UNIT 2			
1	Ordering numbers		14
2	Roman numerals		
3	Negative numbers		37
4	Place value		14
UNIT 3			
1	Single digit addition		18
2	Column addition		18
3	Single digit subtraction		19
4	Column subtraction		19
5	Addition and subtraction worded problems		20
UNIT 4			
1	Multiplying and dividing by powers of 10		15
2	Long multiplication		21
3	Short division		22
4	Multiplication and division problems		23

Hegarty Maths Revision

Topic: 30 : Prime Factorisation 2	Have you checked through the required 'Building Blocks'? ☑ 29

Notes from the video:

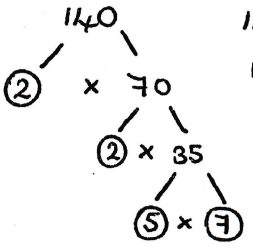
Any composite number can be uniquely expressed as a product of primes.
Product means times/multiply.

Prime numbers 2, 3, 5, 7, 11, 13, 17, 19, ...

Divisibility tests

Divisible by 2	number ends in 0, 2, 4, 6, 8
Divisible by 3	sum of digits is divisible by 3
Divisible by 5	ends in 0, 5

Write 140 as a product of primes



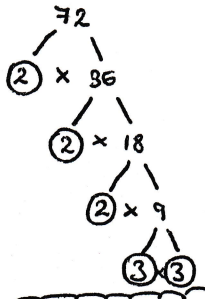
$140 = 2 \times 2 \times 5 \times 7$

in index form

$140 = 2^2 \times 5 \times 7$

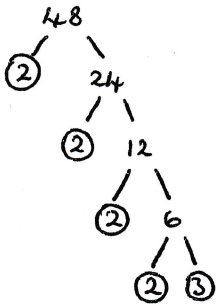
Quiz questions (showing workings and marking work as you go):

1. $125 = 5^3$ ✓
2. $81 = 3^4$ ✓
3. $72 = 2^3 \times 3^2$ ✓

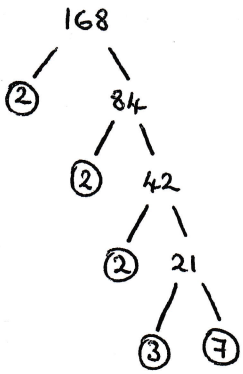


Use X on online keyboard not letter x

4. $200 = 2^3 \times 5^2$ ✓
5. $24 = 2^3 \times 3$ ✓
6. $12 = 2^2 \times 3$ ✓
7. $20 = 2^2 \times 5$ ✓
8. $48 = 2^4 \times 3$ ✓



9. $168 = 2^3 \times 3 \times 7$ ✓
10. $36 = 2^2 \times 3^2$ ✓



Quiz score: 100 %	My confidence level: ☺ 😐 ☹

Hegarty Maths Revision

Checklist: *1. Watched video and taken notes; 2. Completed the quiz, writing down your workings and score; 3. Completed the 'My confidence level' section.*

Topic:	Have you checked through the required 'Building Blocks'? ☐
Notes from the video:	
Quiz questions (showing workings and marking work as you go):	
Quiz score: %	My confidence level: ☺ 😐 ☹

Remember to see your teacher if you have watched the video on Hegarty Maths and still do not understand.

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