

INVICTUS

Education Trust

Name:

Book number: 1 / 2 / 3 / 4 / 5

Maths

Year 7

Progress grades	
4	Exceeding Invictus aspirational progress
3	Achieving Invictus aspirational progress
2	In line with Government minimum progress
1	Below expected progress

INVICTUS Year 11 Target: ___

AUTUMN SPRING SUMMER

Yr6 to Yr7

Summer Term Activities



INVICTUS
TH FORM



INVICTUS

Education Trust

Welcome to Invictus maths

We are really looking forward to seeing you in September.

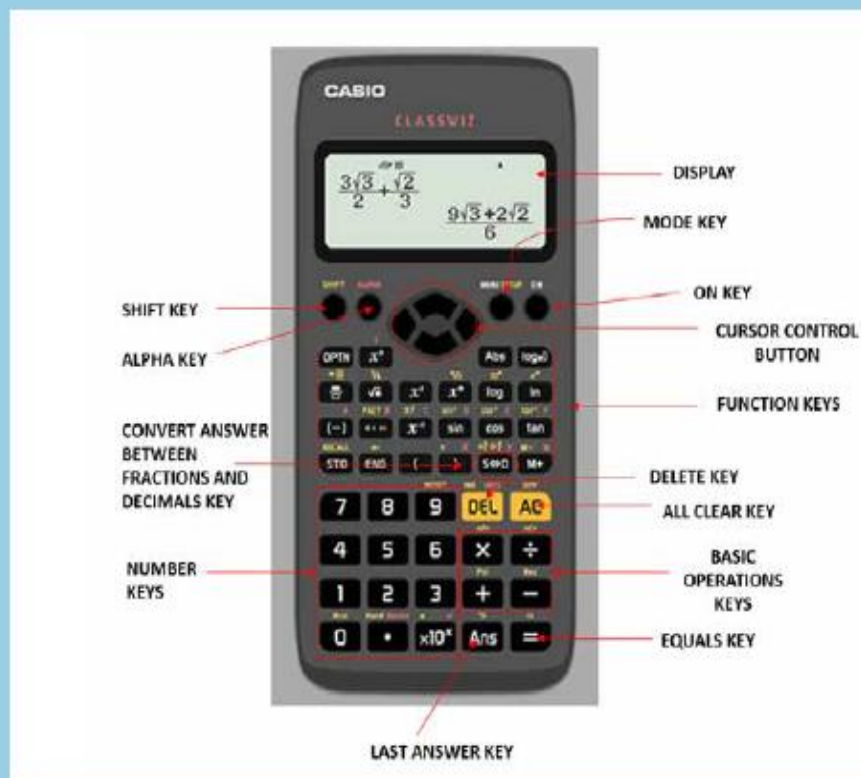
Here is a pack of optional activities we have put together to keep your maths brain working.

There is a mixture of fun activities and examples of the type of tasks you will be doing in your Year 7 lessons at your new school.

Also join up to the Hegarty maths “numerise” to help you get ready for Year 7. You can use a phone, tablet or computer to access this for free.

See you soon !

Mr Nock – Director of mathematics



All our schools use Hegarty maths
Sign up to “numerise” and get ready for Yr7



hegartymaths

FREE
PILOT



numerise

Maths built for you

Numerise is personalised to your child and is extremely easy to use.

Whatever their level, Numerise helps learners develop their maths skills and knowledge.

Questions match the topics in **Key Stage 3 and GCSE Maths**, so your child can practise independently, work through topics they are struggling with or get help with long-term revision.

To prepare your Year 6 child for joining Year 7 in September, register for the **Secondary Ready course** in Numerise.

This version of Numerise is our pilot product so you will notice a lot of changes over the next few months – we'd love to hear your thoughts.

LOG IN

SIGN UP

TELL ME ABOUT SECONDARY READY

The screenshot shows a web browser window with the URL <https://www.numerise.co.uk>. The page title is "numerise" and there is a "MENU" button. The main content area is titled "Finding fractions of shapes" and features a progress bar. Below the title, there are six question cards labeled "Question 1" through "Question 6". Question 1, 2, and 3 have green checkmarks. Question 4 has a gold medal icon. Question 5 has a red 'X' icon. Question 6 has a purple arrow icon. Below the question cards, there is a "Learning check" section with a progress bar showing a green checkmark, a red 'X', and an empty circle. A "Review" button is located to the right of the learning check progress bar. The text "Attempted on 1/11/19" is visible in the bottom right corner of the learning check section.

Maths Word Search

This word search contains twenty-five words related to Maths.

How many can you find?

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

Colour by Number

Instructions

Calculate each answer then use the key to shade each section in the correct colour.

Red	0-100
Yellow	101-200
Orange	201-300
Blue	301 or more

Key Terms

Instructions

Write a definition for each key term. You may use a dictionary.



acute angle	
area	
average	
circumference	
cube number	
cube root	
diameter	
difference	
equation	
equal	
expression	
factor	

The Value of Words

Instructions

Use the key to calculate the value of each word, in pounds. The first question has been completed for you.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
50p	£1.03	£0.62	£0.15	10p	72p	22p	£0.15	£0.08	£1.21	£2.50	£1.08	42p	£0.78	£0.05	£1.65	£3.00	45p	68p	£0.18	95p	£0.27	£1.11	£1.85	£2.05	£2.88

1 NUMBER	$£0.78 + 95p + 42p + £1.03 + 10p + 45p = £3.73$
2 ALGEBRA	
3 PROBABILITY	
4 STATISTICS	
5 GEOMETRY	
6 RATIO	
7 MEASURE	
8 OPERATION	
9 ADDITION	
10 SUBTRACTION	
11 MULTIPLICATION	
12 DIVISION	

Maths Riddles

- I am a cube number and a square number below 100.
- 8, 4 and 16 are factors.

What number am I?

- I am a square number.
- I am an even number.
- I am between 20 and 50.

What number am I?

- I am a prime number.
- I am less than 20 and I have two digits.
- If you double me and subtract 9, you get a square number.

What number am I?

- I am a square number.
- I am an odd number.
- I am between 20 and 50.
- 7 is one of my factors.

What number am I?

- I am an even number.
- I am more than 80 but less than 90.
- 6, 12 and 7 are some of my factors.

What number am I?

Name :

61.1

Question 1 Write in figures : thirteen thousand, five hundred and two units	Question 2 Write in figures : seventy seven thousand, eight tens and three units	Question 3 List the factors of 51	Question 4 List the factors of 36
Question 5 Work out $7 \times 10 =$	Question 6 Work out $10 \times 10 =$	Question 7 Simplify $\frac{8}{16}$	Question 8 Simplify $\frac{12}{42}$
Question 9 Find 50% of £180	Question 10 Find 25% of £120	Question 11 Round 2084 to the nearest 100	Question 12 Round 3372 to the nearest 10
Question 13 Work out $86 \times 8 =$	Question 14 Work out $630 \times 9 =$	Question 15 Simplify $5c + 5c + 6c$	Question 16 Simplify $10a + 2b + 8a + 7b$
Question 17 Work out $39253 + 15736 =$	Question 18 Work out $30730 + 18364 =$	Question 19 Work out $8 \times 2 - 5$	Question 20 Work out $6 + 11 \times 3$

SKILLS CHECK

Score

Name :

66.1

Question 1 Complete 660 seconds = minutes	Question 2 What is the time 40 minutes after 1:15?	Question 3 Work out $1\frac{3}{5} + 1\frac{1}{4}$	Question 4 Work out $2\frac{1}{3} + 2\frac{1}{2}$
Question 5 Solve $x + 11 = 17$	Question 6 Solve $x + 4 = 8$	Question 7 Work out $8 \times 0.4 =$	Question 8 Work out $11.7 \times 9 =$
Question 9 Find 20% of £660	Question 10 Find 20% of £740	Question 11 Work out $15.48 \times 100 =$	Question 12 Work out $15.27 \times 10 =$
Question 13 Complete 1530 m 3.57 km (< = or >)	Question 14 Complete 1.66 km 2280 m (< = or >)	Question 15 Complete using < = or > 0.33 0.334	Question 16 Complete using < = or > 0.347 0.35
Question 17 List the factors of 50	Question 18 List the factors of 28	Question 19 Work out $\frac{3}{5} \times \frac{2}{3}$	Question 20 Work out $\frac{1}{3} \times \frac{1}{2}$

SKILLS CHECK

Score

Name Date

N1

1. $74 - 28$	2. $40 - 16$	3. $50 + 13$	4. $27 \div 9$	5. $30 \div 10$	6. $22 \div 2$	7. 2×11	8. 2×11
9. $46 + 24$	10. 10×7	11. 8×11	12. 11×8	13. 9×11	14. 5×6	15. $45 \div 5$	16. 5×6
17. 3×6	18. $50 + 28$	19. $36 + 18$	20. $69 + 30$	21. $88 \div 8$	22. $65 - 42$	23. $46 + 30$	24. $22 \div 11$
25. $42 \div 7$	26. 6×4	27. $36 - 19$	28. $18 \div 2$	29. 7×11	30. $30 \div 3$	31. $49 + 34$	32. $72 \div 9$
33. $60 + 30$	34. $60 \div 6$	35. $67 + 30$	36. $22 \div 11$	37. 9×10	38. 12×9	39. $72 \div 6$	40. $38 - 15$

SCORE

NUMBER-UP

TIME

Name Date

Y1

1. 60% of 40	2. 35% of 190	3. 10% of 470	4. 40% of 510	5. 99.52 - 81.6	6. 73.62 + 39.2	7. 5 × 0.9	8. 2 × 1.2
9. 91 + 46.69	10. 40 ÷ 10	11. 8% of 250	12. 60% of 460	13. 3% of 350	14. 2 × 1.1	15. 80% of 60	16. 85% of 460
17. 89.4 - 89.1	18. 6 × 0.7	19. 9% of 490	20. 65% of 400	21. 49 + 1.4	22. 0.4 × 0.5	23. 20 + 1.6	24. 81 ÷ 9
25. 50% of 230	26. 65% of 30	27. 30% of 140	28. 7 × 7	29. 8 × 0.8	30. 37.97 - 34	31. 10% of 390	32. 90 ÷ 9
33. 90% of 540	34. 71 + 17.64	35. 7% of 320	36. 4% of 530	37. 30.78 - 21.4	38. 8% of 310	39. 90% of 190	40. 59 + 18.3

SCORE

NUMBER-UP

TIME

Use the digits

1, 2, 3, 3, 5, 6

to fill in the missing numbers to
make the calculation correct

$$\boxed{} \times \boxed{}\boxed{} - \boxed{} = \boxed{}\boxed{}$$

Problem 3

Work out the missing number

$$75 + 13 + ?? = 140$$

How many teams scored more than 3 goals?

Team	No. of goals
A	3
B	5
C	4
D	2

Express 96 out of 400 as a percentage

The table shows the number of brothers and sisters of the students in year 7.

What percentage of students have more than 1 brother or sister?

Number of brothers and sisters

	1	2	3	4	
Year 7 Male students	62		8		104
Year 7 Female students		24	14		
	118			6	200

+ 4
- 2
- 15
+ 3
+ 2
- 14
- 2
+ 8
- 3
+ 10

???

36

+ 14
÷ 2
+ 5
× 4
÷ 10
+ 16
- 8
× 4
- 22
÷ 2

???

+ 64
10% of it
Square it
- 51
+ 11
÷ 3
+ 14
÷ 2
+ 13
× 3

???



S
K
I
R
U
N
S

Copy the grid

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

Cross out the..

Square numbers

Factors of 24

Multiples of 5

Prime Numbers

What is the sum
of your unshaded
numbers



WEEK 1 SESSION 1 - Answer as many questions as you can in 5 mins

MENTAL STRATEGIES -
do these in your head

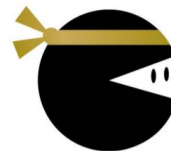
TIMESTABLES -
do these in your head

KEY SKILLS - you may use written calculations
for these questions

Q	Question	Answer
1	$2 + 3$	
2	$89 + 11$	
3	What is half of 6?	
4	$125 - 10$	
5	$177 + \square = 270$	
6	$53 = 23 + \square$	
7	$805 - 804$	
8	$4 \times 1 = 4$, so $4 \div 4 = \square$	
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	$2 \times 9 = \square$	
2	$24 \div 3 = \square$	
3	$10 \times \square = 80$	
4	$6 \div \square = 3$	
5	$1 \times 2 = \square$	
6	$28 \div 7 = \square$	
7	$\square \times 6 = 54$	
8	$\square \div 2 = 5$	
9	$3 \times 9 = \square$	
10	$4 + 4 = \square$	
Total out of 10		

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	$(-40) \div (-4)$	
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		



What's your **NINJA** Score?
Fill in your scores in the boxes
and calculate it now!

MY **NINJA** BELT:

MENTAL STRATEGIES:

TIMESTABLES:

KEY SKILLS: +

NINJA SCORE:

NINJA SKILL FOCUS

Convert Between Fractions, Decimals and Percentages Key Skills

Complete the daily exercises to focus on improving this skill.

Day 1		
Q	Question	Answer
1	$1.594 = \square\%$	
2	60% as a fraction	
3	$22/100 = \square\%$	
4	$43/100 = \square\%$	
5	0.9 as a fraction	
6	$1/2 = \square\%$	
7	0.74 as a fraction	
8	$1.806 = \square\%$	
9	$4/10 = \square\%$	
10	166.9% as a decimal number	

Day 2		
Q	Question	Answer
1	69.4% as a decimal number	
2	1/10 as a decimal number	
3	$9/10 = \square\%$	
4	7/10 as a decimal number	
5	$2/5 = \square\%$	
6	$1.5 = \square\%$	
7	3/10 as a decimal number	
8	$19/100 = \square\%$	
9	$1.137 = \square\%$	
10	$5/5 = \square\%$	

Day 3		
Q	Question	Answer
1	4/5 as a decimal number	
2	9/10 as a decimal number	
3	$0.94 = \square\%$	
4	0.7 as a fraction	
5	70% as a fraction	
6	$0.61 = \square\%$	
7	$0.042 = \square\%$	
8	$10/10 = \square\%$	
9	$0.22 = \square\%$	
10	$1.469 = \square\%$	

Day 4		
Q	Question	Answer
1	$3/10 = \square\%$	
2	$2/5 = \square\%$	
3	$0.963 = \square\%$	
4	$1.79 = \square\%$	
5	$0.201 = \square\%$	
6	10% as a fraction	
7	0.82 as a fraction	
8	$1.47 = \square\%$	
9	$0.4 = \square\%$	
10	$11/100 = \square\%$	