Clue 1 Turn up the Volume

Fill in the gaps in this table to find the message.

Length cm	Width cm	Height cm	Volume cm ³	Letter
13	2	1	26	M
9	4	3	108	I
19	2	2	76	S
14	3	2	84	N
15	5	1	75	0
5	2	2	20	Т
7	5	1	35	А
8	6	2	96	В
9	3	3	81	1
7	4	2	56	G
6	6	2	72	F
13	3	1	39	А
14	2	2	56	N
5	3	1	15	0
6	5	2	60	F
20	4	2	160	Т
8	3	2	48	Н
3	2	3	18	R
9	3	2	54	I
3	2	2	12	L
12	4	3	144	L
5	5	4	100	E
18	2	2	72	R
19	2	5	190	S

Clue 2 - Raising the bar

Have you ever wondered what librarians do when there is no one else around? In this library, they race - pushing a trolley of books. The circuit weaves a figure of eight around the children's books, delicately touches the Romance section, hastily scurries past the Horror section before finishing next to the thrillers. One second is added on for every book which falls off the trolley.

To crack this clue, plot a bar chart of the times of the different librarians.

Name	Time (secs)	Books	Adjusted
		dropped	time
Kate	35	3	38
Freda	22	4	26
Mary	17	9	26
Bill	15	13	28
Horace	15	1	16
Oliver	18	12	30
Wendy	17	17	34
Max	19	5	24
Sally	13	1	14

To solve this clue you must:

- A) Arrange the names of the librarians in alphabetical order starting from the origin.
- B) Use a scale which makes best use of the space available.
- C) The word below the top of each bar is part of the clue.
- D) You will need to rearrange the 9 words to make a sentence.
- E) Although it won't help with the clue, label each axis and give the chart a heading!

Answer: Killer has a library card number divisible by three

Bar chart of librarians' race times

40		aliviana] a ain a	nonodico		h a		lei med	o f
	1	always	imagine	paradise	will	be	a	kind	of
	library.	male	female	Killer	biscuit	crumb	tea	coffee	spill
	You	may	sit	in	our	library	yet	be	in
	all	quarters	of	the	earth.	Check	it	out!	divisible
20	What	in	the	world	would	we	do	without	libraries?
30	Books	don't	have	to	have	looks.	number	Dewey	decimal
	has	Nothing	is	pleasanter	than	exploring	a	library.	fine
	А	library	is	not	a	luxury	but	one	of
	the	necessities	of	life.	Books	by	famous	authors.	fiction
20	Му	two	favourite	things	in	life	are	libraries	and
	bicycles.	They	both	move	you	forward	without	wasting	anything.
puc	Spread	the	words.	Sssh	be	quiet.	When	I	got
sec	my	library	card	that's	when	my	life	began.	snore
) e	Take	your	dreams	off	the	shelf.	five	three	six
Time (seconds)	Don't	judge	a	book	by	its	cover.	one	two
10	Take	your	dreams	off	the	shelf.	Silence	Is	golden.
	When	the	going	gets	tough,	the	tough	get	a
	librarian.	Open	a	book,	open	your	mind.	quiet	please
	Cutting	libraries	in	a	recession	is	like	cutting	hospitals
0	In	a	plague.	snack	open	closed	borrow	novel	overdue
3	Bill	Freda	Horace	Kate	Mary	Max	Oliver	Sally	Wendy

Clue 3 Decimal System

Calculate the x or \div . Add the digits in the tens, units and tenths positions. Decode the number. eg

	Answer	Number	Letter
14450 ÷ 100	1 <mark>44.5</mark>	13	М
4.620 x 100	4 <mark>62.0</mark>	8	Н
21.005 x 10	2 <mark>10.0</mark> 5	1	Α
8676.24 ÷ 10	8 <mark>67.6</mark> 24	19	S
1.09324 x 1000	10 <mark>93.2</mark> 4	14	N
102.124 x 10	10 <mark>21.2</mark> 4	5	Е
99454.2 ÷ 1000	<mark>99.4</mark> 542	22	V
0.23019 x 100	<mark>23.0</mark> 19	5	Е
123.774 x 100	123 <mark>77.4</mark>	18	R
0.18864 x 1000	1 <mark>88.6</mark> 4	22	V
16.234 x 100	16 <mark>23.4</mark>	9	I
55901 ÷ 1000	<mark>55.9</mark> 01	19	S
6.4126 x 1000	64 <mark>12.6</mark>	9	I
47679.3 ÷ 100	4 <mark>76.7</mark> 93	20	Т
0.5001 x 100	<mark>50.0</mark> 1	5	E
354112 ÷ 10	354 <mark>11.2</mark>	4	D
14.6862 x 100	14 <mark>68.6</mark> 2	20	Т
8.22410 x 100	8 <mark>22.4</mark> 1	8	Н
0.422174 x 1000	4 <mark>22.1</mark> 74	5	E
0.005117 x 10000	<mark>51.1</mark> 7	7	G
2304.17 ÷ 100	<mark>23.0</mark> 417	5	Е
554.21 ÷ 10	<mark>55.4</mark> 21	14	N
0.848417 x 100	<mark>84.8</mark> 417	20	Т
1.88321 x 100	1 <mark>88.3</mark> 21	19	S

Clue 4 Brackets

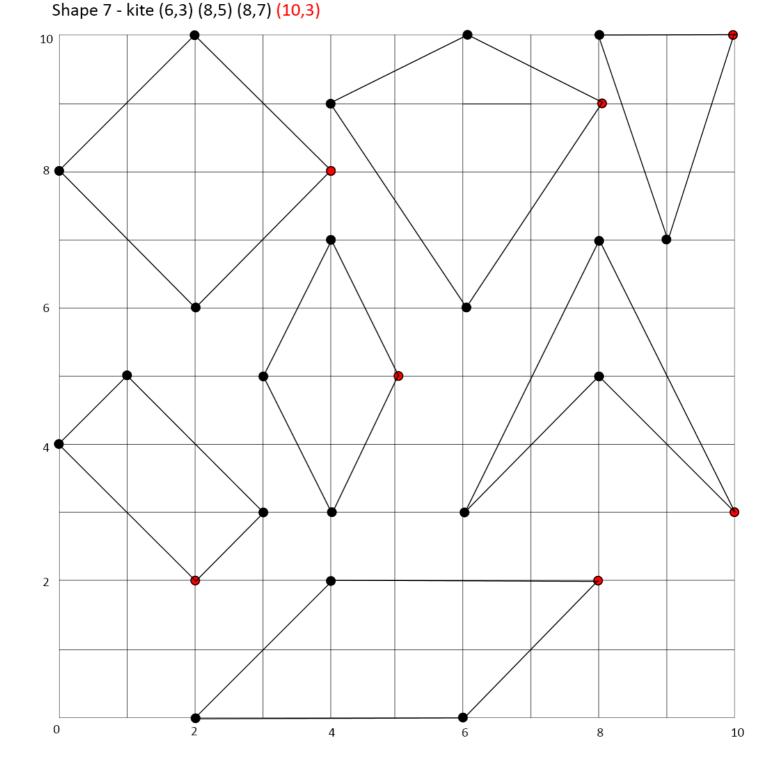
Work out where the brackets should go to make each number sentence correct. The numbers in the brackets give the code.

	Numbers within brackets	Letter
(6 + 7) X 2=26	13	M
3 X (30 – 7)=69	23	W
$\frac{2\times(6-5)}{4} = \frac{1}{2}$	1	Α
2 x (26-7) =38	19	S
$(10 + 4) \div 2 = 7$	14	N
$\frac{2+4}{2\times(9+6)} = \frac{1}{5}$	15	0
(3 + 7 + 10) x 2=40	20	Т
3 x(4 – 2) =6	2	В
40 ÷ (2 + 3) =8	5	E
(5 + 5 + 9) x 2 = 38	18	S
2 x (9 + 7) = 32	16	Р
9 x (2 + 2 + 1) = 45	5	E
$7 \times (2 + 1) = 21$	3	С
3 + 5 x (10 + 10) = 103	20	T
2 x (9 – 8) x 3 = 6	1	Α
$(12-9) \div 2 = 1.5$	3	С
$\frac{3\times(10+2)}{18} = 2$	12	L
(20 -15) x 12 =60	5	E
9 x (2 +1 + 1) =36	4	D

Clue 5 - Find the missing corner

To solve this clue, plot the co-ordinates given and then find the co-ordinates of the missing corner. Use this to find a word from the word table. Rearrange the 7 words you get to make a sentence. No shapes overlap. Draw the shapes in order. All co-ordinates are whole numbers.

Shape 1 - square (0,8) (2,10) (2,6) (4,8) Shape 2 - rectangle (0,4) (1,5) (3,3) (2,2) Shape 3 - kite (4,9) (6,10) (6,6) (8,9) Shape 4 - isosceles triangle (8,10) (9,7) (10,10) Shape 5 - rhombus (4,3) (3,5) (4,7) (5,5) Shape 6 - parallelogram (2,0) (4,2) (6,0) (8,2)



10	book	library	man	woman	author	thriller	Coke	Pepsi	tea	drink
9	coffee	mug	glass	trolley	sometimes	fine	quiet	Killer's	book	card
8	overdue	race	open	usually	hot	cool	holiday	activity	poetry	reference
7	fiction	geography	biography	big	books	cook	breakfast	toilet	DVD	rent
6	crime	horror	romance	family	action	detective	cup	milk	smoothie	water
5	lemonade	beer	fizzy	wine	is	whisky	alcohol	sip	Ovaltine	Horlicks
4	Nesquik	Tang	tree	leek	plum	chicken	divide	one	six	eight
3	four	dead	alive	police	catch	criminal	prison	7 Up	sun	cold
2	not	favourite	like	help	staff	librarian	Tango	served	Sprite	sell
1	can	solve	crime	dial	999	finger	print	cell	locked	up
	1	2	3	4	5	6	7	8	9	10

Killer's favourite drink is usually served cold.

This should give Danielle Denouement as the killer.