

DAWSAN'S MATHS EXPRESS

D.Williams



Dunnitt Tasks

NAME



DAWSAN'S
Maths
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S. Edwards & D. Williams

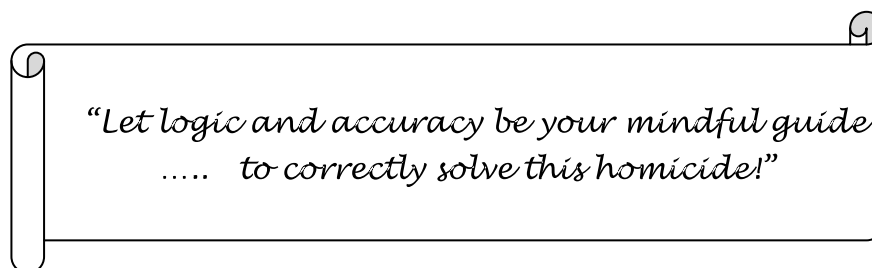
These fun calculations are devised
to be to be used in conjunction with the
Dawsan's Maths Dictionary.

Introduction

In the early twentieth century the renowned sleuth, Sir William Dawson, was assigned to the case of the murder at "Dunnitt Downe". But sadly with the demise of our hero (as a result of consumption) this case went cold. However, our belated detective left age-old documentation which has been passed down through the generations. The information in the tasks that follow will lead to the solution of: "Who, where and how at 'Dunnitt Downe'."

How it works:

In order to discover who killed Sir Dunnitt senior, where they did it, and what weapon was used, you need to complete the following tasks. In each task you will be able to eliminate suspects, weapons and locations until only the guilty items remain. As you progress, cross off your findings on the elimination table provided. Some items are eliminated by more than one task. So if a task tells you to eliminate an item, and you find that you have already eliminated it, don't assume you have gone wrong. Frustrations like this happen in real life investigations!



Elimination Table

Suspects	Weapons	Locations
Hugh Dunnitt Jnr. (Prodigal son) Eliminated: TASK ____	Crossbow Eliminated: TASK ____	Parlour Eliminated: TASK ____
Lady Ida Reeson (Ex-wife) Eliminated: TASK ____	Musket Eliminated: TASK ____	Banquet Hall Eliminated: TASK ____
Mrs. I.M. Brootel (Retrenched House-Keeper) Eliminated: TASK ____	Rapier Eliminated: TASK ____	Boudoir Eliminated: TASK ____
Count N.O.Goode (Gambling Partner) Eliminated: TASK ____	Mace Eliminated: TASK ____	Upper Chamber Eliminated: TASK ____
The Honourable E.S.Notsew (Crooked Family Lawyer) Eliminated: TASK ____	Croquet Mallet Eliminated: TASK ____	Conservatory Eliminated: TASK ____
Lady May B.Giltee (Jealous Sister) Eliminated: TASK ____	Sabre Eliminated: TASK ____	Billiard Room Eliminated: TASK ____
Sir Tinley U.R.Suspected (Betrayed Friend) Eliminated: TASK ____	Pistol Eliminated: TASK ____	Reception Hall Eliminated: TASK ____
Wilbur Trayew (Untrustworthy Gardener) Eliminated: TASK ____	Poker Eliminated: TASK ____	Larder Eliminated: TASK ____

MURDERER: _____	WEAPON: _____	LOCATION: _____
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Task One

The answer to each of the clues begins with a different letter of the alphabet. As you solve them, put this letter into the column headed "Decoded". When you have all 26 answers, decode and solve the clue at the bottom of the page. It will help you eliminate two of the items.

Coded	Decoded	Question
A		Roman numeral for 50
B		Name given to a number that only has two factors
C		Name given to a Δ with 3 sides equal and 3 angles equal.
D		Name of the number written above the line in a common fraction.
E		Name of an angle greater than 90° but smaller than 180° .
F		What will the equation $l \times b$ give you?
G		Another name for Common Fractions
H		Special word for a group of 5 people.
I		Name given the symbol \sim
J		Roman numeral for 1 000.
K		Special word for an amount of 13.
L		Name of a Δ with two sides equal and two angles equal.
M		The prefix used to indicate the number 12.
N		The number of sides on a rhombus.
O		Write down the fourth month of the year which has 31 days.
P		1 000 litres equals one ...
Q		Another word for nil or nought.
R		Name given to a six-sided polygon.
S		Special name given to 12 dozen.
T		A temperature scale that registers the boiling point of water at 100°
U		The Roman numeral for 10.
V		The prefix used to indicate the number 1.
W		The name of a triangle with one angle equal to 90° .
X		There are $365\frac{1}{4}$ days in a ...
Y		The sixth prime number.
Z		A fortnight is equal to 2 ...

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
 Y R C M C C M Z F I D E Y M E D C K X Y R C Z F X Z F W M I E D

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
 F D M Y Z F I D E Y L D Y R C A F W M C W Y R C X N E V D M R L I

_ _ _ _ _ _ !
 N F Y R C W

Task Three

Our wise sleuth Dawsan believed that the murderer was intelligent due to the complexity of the crime. For this reason he acquired the I.Q (Intelligence Quotient) score for each of his original 10 suspects. (Two of which he himself eliminated due to insufficient evidence).

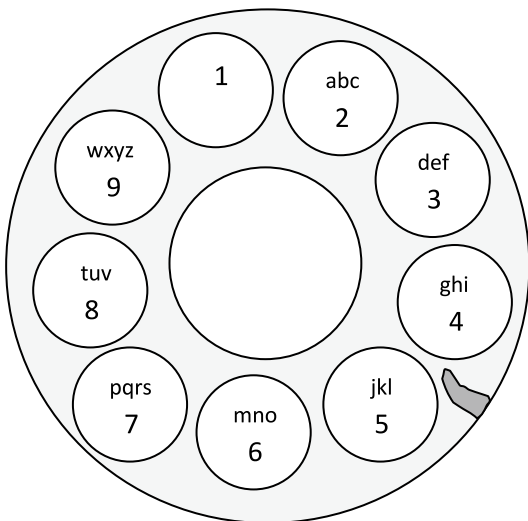
Your job here is to (a) establish the I.Q. scores of each suspect, (b) identify the two with the lowest I.Q. and (c) the names of these two suspects which you may then eliminate. In order to complete this final task, use the numbers and letters found on an old-fashioned telephone dial. (For example a 3 could be a "d", "e" or "f").

All I.Q. scores must be rounded off to the nearest whole number.

- | | | | |
|-----|-------------|--|-------|
| (a) | Suspect 1: | IQ level is 5% higher than that of Suspect 7. | _____ |
| | Suspect 2: | IQ level is 15% lower than that of Suspect 9. | _____ |
| | Suspect 3: | IQ level is 5% higher than that of Suspect 10. | _____ |
| | Suspect 4: | IQ level is 10% lower than that of Suspect 3. | _____ |
| | Suspect 5: | IQ level is 5% higher than that of Suspect 8. | _____ |
| | Suspect 6: | IQ level is 102. | 102 |
| | Suspect 7: | IQ level is 40% higher than that of Suspect 2. | _____ |
| | Suspect 8: | IQ level is 35% lower than that of Suspect 1. | _____ |
| | Suspect 9: | IQ level is 10% higher than that of Suspect 6. | _____ |
| | Suspect 10: | IQ level is 10% lower than that of Suspect 5. | _____ |

(b) Two suspects with lowest IQ's: _____

(c) You only need to decode the two suspects that you believe have the lowest IQ's.



- | | | |
|-------------|--------------------------|---------------|
| Suspect 1: | Eliminated by Sir Dawsan | |
| Suspect 2: | 3 8 6 6 4 8 8 | D U N N I T T |
| Suspect 3: | 2 7 6 6 8 3 5 | _____ |
| Suspect 4: | 8 4 6 5 3 9 | _____ |
| Suspect 5: | 3 7 2 2 7 3 6 8 | _____ |
| Suspect 6: | Eliminated by Sir Dawsan | |
| Suspect 7: | 6 6 8 7 3 9 | _____ |
| Suspect 8: | 7 3 3 7 6 6 | _____ |
| Suspect 9: | 4 6 6 3 3 | _____ |
| Suspect 10: | 4 4 5 8 3 3 | _____ |

ELIMINATE: _____ and _____

Task Four

First calculate the answers to each of the problems below the table (Write your answer in words). Then, on the grid below, starting at the **START**, move one square at a time either up, down, left or right. This will trace a path spelling out each of your answers. If you do it correctly you will end up at the **FINISH**. No letter is used more than once. The letters not used will spell out, from left to right, top to bottom, something that you can safely eliminate.

									FINISH ▼
X	T	E	V	E	N	I	R	C	E
I	Y	S	T	E	T	H	T	H	N
S	I	N	Y	N	I	O	Y	N	I
E	N	T	Y	S	N	N	E	Y	T
O	E	H	X	I	T	H	F	A	R
W	I	G	F	T	Y	G	O	R	I
T	N	I	O	R	N	I	E	T	H
Y	E	N	Y	T	I	V	E	Y	T
T	S	E	M	R	N	L	T	Y	T
N	E	V	H	I	E	E	W	I	R
B	U	R	T	E	S	T	Y	H	T
F	O	E	R	V	E	N	S	I	X
START ▲									

Remember the rules for the order of operations!

- a) $3\frac{2}{5} + 1\frac{1}{2} \div \frac{3}{4} - 1\frac{2}{5} = \dots\dots\dots$ b) $42 - 5 \times 1,25 + 3,25 = \dots\dots\dots$
- c) $10^2 - 5^2 - \sqrt{9} = \dots\dots\dots$ d) $35\% \text{ of } 200 + 2^4 = \dots\dots\dots$
- e) Area of a square: $S = 7\text{m} \dots\dots\dots\text{m}^2$ f) $\text{LII} + \text{IV} \times \text{VI} = \dots\dots\dots$
- g) $0,2\text{m} \times 150 = \dots\dots\dots\text{m}$ h) $8 \text{ litres} \div \frac{2}{3} = \dots\dots\dots\text{l}$
- i) No. of degrees in 2 revolutions \div No. of degrees in a right angle = $\dots\dots\dots^\circ$
- j) 5^{th} prime no. \times 4^{th} composite no. = $\dots\dots\dots$
- k) $(20 + 6) \times 2 + 3 \times 5 = \dots\dots\dots$ l) Sum of the factors of 16 = $\dots\dots\dots$
- m) L.C.M of 2, 5 and 8 = $\dots\dots\dots$ n) $\sqrt{676} + \text{a baker's dozen} = \dots\dots\dots$

LOCATION ELIMINATED: $\dots\dots\dots$

Task Five

In this puzzle you will be able to make another elimination. Start on the arrow next to the bloodstain. It has a number 3 and points south. So move 3 squares south. This puts you on an arrow that has a number 2 and points east. So move 2 squares east. Continue in this way until you reach the exit arrow, which in turn allows you to make your elimination. (The blood stain counts as a square). Double check your result as it is easy to make an incorrect move.

Lady May despised her brother, but 'twas not her..... 'twas another!

Where this dastardly deed took place, they did not chance upon a mace!

The boudoir was a room so fair, but no crime was committed there.

'Twas not a weapon with a blade that laid this gent within his grave.

Eliminate: and

Task Six

Each letter in each of the sums below represents a digit from 0 to 9. In each individual sum a specific letter stands for the same digit. When a digit appears in a sum, none of the letters in that sum will represent that digit. So, L, M and W in the first sum cannot stand for 2, 4, 6 or 9. Once you have found the values for each of the letters, decode the message at the end of the page in order to make an elimination. (* means the letter O, not zero).

i)
$$\begin{array}{r} W \quad M \quad M \quad M \\ - \quad L \quad 2 \quad M \quad 4 \\ \hline L \quad W \quad 9 \quad 6 \end{array}$$

L = _____

M = _____

W = _____

ii)
$$\begin{array}{r} 7 \quad Y \quad O^* \quad 3 \quad E \\ I \quad Y \quad 6 \quad 3 \quad 6 \\ + \quad \quad \quad T \quad O^* \quad 7 \quad E \\ \hline T \quad H \quad 0 \quad H \quad H \quad 2 \end{array}$$

Y = _____

H = _____

E = _____

O* = _____

T = _____

iii)
$$\begin{array}{r} N \quad P \quad P \quad 1 \quad T \\ R \quad 6 \quad N \quad T \quad 1 \\ + \quad 4 \quad P \quad 9 \quad R \quad 8 \\ \hline 1 \quad 4 \quad P \quad T \quad 4 \quad 4 \end{array}$$

N = _____ P = _____

T = _____ R = _____





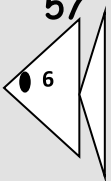




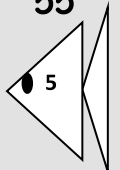



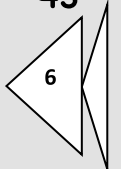


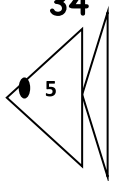


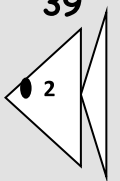

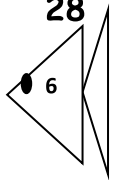



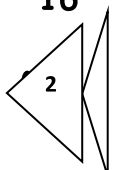




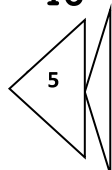


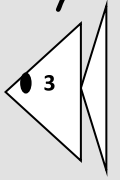
iv)
$$\begin{array}{r} A \quad 8 \quad B \\ \times \quad \quad \quad 5 \quad 1 \\ \hline A \quad 8 \quad B \\ 1 \quad 4 \quad 1 \quad 5 \quad 0 \\ \hline 1 \quad 4 \quad 4 \quad B \quad B \end{array}$$

A = _____ B = _____

ELIMINATE: iv)2 iii)2 ii)9 i)7 ii)8 iv)2 iii)3 ii)4 iii)2 i)7 ii)6 iii)5 ii)5 iii)5 ii)5 ii)8

i)3 ii)8 iii)5 iii)5 ii)8 iii)7 i)"0"


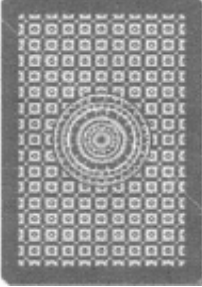

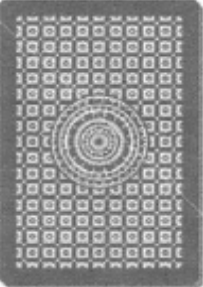
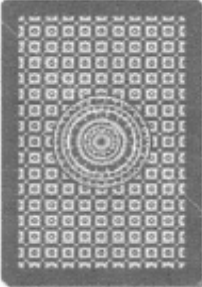
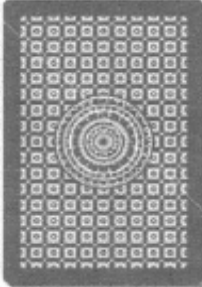
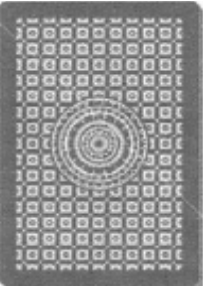
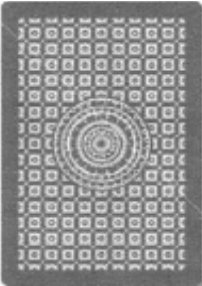
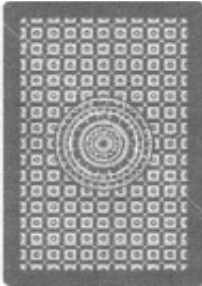
Task Eight (Game Board)

CASE SOLVED	62 	61 	60 	59	58 	57 	56
48 	49	50	51	52 	53 	54 	55 
47	46 	45 	44 	43 	42	41	40 
32 	33	34 	35 	36	37	38 	39 
31	30 	29	28 	27 	26 	25	24 
16 	17	18 	19	20	21 	22	23
15	14	13 	12 	11	10 	9 	8
BODY FOUND	1	2	3 	4	5	6	7 

Task Nine

Below are nine cards. Use the clues given below in order to work out where each card lies and in so doing, make an elimination. The nine cards are:

2♣, 3♣, 4♣, 5♦, 9♦, 9♥, 10♣, Q♣, Q♥

					
				Queen of Clubs	
					

1. The Queen of clubs is the centre card.
2. The bottom right card is a diamond and the bottom left card is a club.
3. The leftmost card in the middle row is a nine.
4. Each column contains cards of different values and suits.
5. The value of the cards in the top row total nine.
6. Value of cards in left most column total 21.

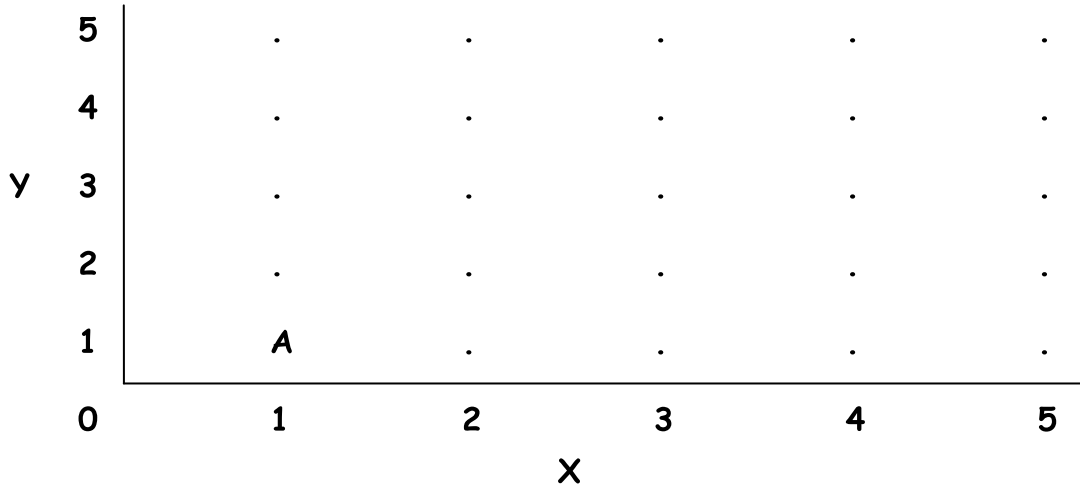
In which column does the five of diamonds lie?

Eliminate:

LEFT COLUMN?	MIDDLE COLUMN?	RIGHT COLUMN?
Eliminate: Mace	Eliminate: Boudoir	Eliminate: N.O.Goode

Task Eleven

This grid contains the final information needed to establish the identity of the murderer. First of all you must find the position of each letter given and place it on the graph below. (The first one has been done for you). Thereafter unravel the letters needed to disclose the names of two suspects which you may eliminate.



- | | | |
|---|--|-------|
| A | First natural number (X); $(12 \div 12)^2$ (Y) | 1;1 |
| B | Second counting number (X); first prime number (Y) | _____ |
| C | $\sqrt{25}$ (X); 20% of 20 (Y) | _____ |
| D | $\frac{1}{6}$ of 18 (X); $2,4 \div 1,2$ (Y) | _____ |
| E | A score \div a decade (X); A millennium \div 2 centuries (Y) | _____ |
| F | Number of right angles in a revolution (X); $\frac{1}{3} \div \frac{1}{6}$ (Y) | _____ |
| G | Number of hours in $\frac{1}{6}$ of a day (X); $\sqrt{9}$ (Y) | _____ |
| H | Number of weeks in a fortnight (X); 2^2 (Y) | _____ |
| I | Number in a quintet (X); Number in a duet (Y) | _____ |
| J | $3^2 \div 9$ (X); Number of months with 30 days (Y) | _____ |
| K | Number of weeks in 168 hours (X); $\frac{15}{500}$ as a % (Y) | _____ |
| L | Number of equal angles in an isosceles Δ (X); $\frac{1}{8}$ of 16 (Y) | _____ |
| M | C \div XXV (X); Value of prefix "uni" (Y) | _____ |
| N | 39 \div a baker's dozen (X); value of prefix "pent" (Y) | _____ |
| O | $\frac{3}{100}$ as a % (X); $\frac{104}{26}$ simplified (Y) | _____ |
| P | 20% of 25 (X); $\frac{1}{4} \div \frac{1}{4}$ (Y) | _____ |
| Q | Number in a brace (X); second odd number (Y) | _____ |
| R | Number of sides on a rhombus (X); number of angles in a kite (Y) | _____ |
| S | Number of thirds in 1 (X); $\frac{1}{4}$ of a dozen (Y) | _____ |
| T | Number of degrees in a revolution \div 72° (X); 25% of 20 (Y) | _____ |
| U | $13 - 6 \times 2$ (X); $3 + \frac{1}{2} \times 4$ (Y) | _____ |
| V | Find z if $5z = 25$ (X); Number of days in 72 hours (Y) | _____ |
| W | Number of right angles in a straight angle (X); $\sqrt{144} \div$ a dozen (Y) | _____ |
| X | Number of halves in 2 (X); $0,5 + 9 \times 0,5$ (Y) | _____ |
| Y | $\frac{3}{7} \div \frac{1}{7}$ (X); Number of days in 86 400 seconds (Y) | _____ |

Unravel the following letters to reveal 2 names: 5;5 2;5 2;1 2;1 2;5 3;3 3;4 5;5 4;4 3;5 3;1 1;1

_____ and _____

Task Twelve

Here you have a coded alphabet. You must solve the equations in order to decode the letters. Thereafter decode the message below in order to make two eliminations. Starting tip: Begin with number 14 then move to number 5, number 2 and so on. Continue moving from the "known" to the "unknown" until you have decoded all 26 letters.

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

In the following equations "o" and "l" are the letters "O" and "L", not numbers. You must apply the rule for the order of operations.

- | | |
|---|---|
| <p>1. $\frac{1}{2}b + \frac{1}{2}m = x$ $_ + _ = _$</p> <p>3. $c \times f = k$ $_ \times _ = _$</p> <p>5. $t \times 4 = q$ $_ \times _ = _$</p> <p>7. $\frac{1}{2}m + \frac{1}{2}q = j$ $_ + _ = _$</p> <p>9. $x + o = e$ $_ + _ = _$</p> <p>11. $\sqrt{g} = i$ $_ = _$</p> <p>13. $n^2 - i^2 = c$ $_ - _ = _$</p> <p>15. $h \times t - a = b$ $_ \times _ - _ = _$</p> <p>17. $l + l = m$ $_ + _ = _$</p> <p>19. $\sqrt{d} = a$ $_ = _$</p> <p>21. $q - \frac{1}{2}q = n$ $_ - _ = _$</p> <p>23. $z \div f = i$ $_ \div _ = _$</p> <p>25. $o + l = r$ $_ + _ = _$</p> | <p>2. $t^3 - t = e$ $_ - _ = _$</p> <p>4. $f^4 = d$ $_ = _$</p> <p>6. $\sqrt{d} + i = v$ $_ + _ = _$</p> <p>8. $f \times d - e = h$ $_ \times _ - _ = _$</p> <p>10. $\frac{1}{2}q + s = l$ $_ + _ = _$</p> <p>12. $y - j = e \div q = f$ $_ - _ = _ \div _ = _$</p> <p>14. $5t = 15$ $(5 \times _) = 15$</p> <p>16. $o + p = d$ $_ + _ = _$</p> <p>18. $v + o^2 = z$ $_ + _ = _$</p> <p>20. $t + q + 6 = y$ $_ + _ + _ = _$</p> <p>22. $r - t^2 = i$ $_ - _ = _$</p> <p>24. $\frac{1}{3}y = s$ $_ = _$</p> <p>26. $w - u = o$ $_ - _ = _$</p> |
|---|---|

9

4. 7	2. 1. 14	13. 1. 11. 4. 3. 5. 1. 6	21. 1. 17. 14	2. 5. 6. 4. 13	22. 24. 21
---	---	-----	-----	-----	-----
3. 8. 24	14. 1. 1. 26	11. 1. 6. 3. 4. 5. 6. 24. 16	6. 1	" 8"	1. 14
---	-----	-----	---	" _"	" _" !



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Answers

ANSWERS: Task One

The answer to each of the clues begins with a different letter of the alphabet. As you solve them, put this letter into the column headed "Decoded". When you have all 26 answers, decode and solve the clue at the bottom of the page. It will help you eliminate two of the items.

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B	P	Name given to a number that only has two factors
C	E	Name given to a Δ with 3 sides equal and 3 angles equal.
D	N	Name of the number written above the line in a common fraction.
E	O	Name of an angle greater than 90° but smaller than 180° .
F	A	What will the equation $l \times b$ give you?
G	V	Another name for Common Fractions
H	Q	Special word for a group of 5 people.
I	S	Name given the symbol \sim
J	M	Roman numeral for 1 000.
K	B	Special word for an amount of 13.
L	I	Name of a Δ with two sides equal and two angles equal.
M	D	The prefix used to indicate the number 12.
N	F	The number of sides on a rhombus.
O	J	Write down the fourth month of the year which has 31 days.
P	K	1 000 litres equals one ...
Q	Z	Another word for nil or nought.
R	H	Name given to a six-sided polygon.
S	G	Special name given to 12 dozen.
T	C	A temperature scale that registers the boiling point of water at 100°
U	X	The Roman numeral for 10.
V	U	The prefix used to indicate the number 1.
W	R	The name of a triangle with one angle equal to 90° .
X	Y	There are $365\frac{1}{4}$ days in a ...
Y	T	The sixth prime number.
Z	W	A fortnight is equal to 2 ...

"The deed was not done by the wayward son,
And t'was not in the larder they found his father!"

Eliminate: Dunnitt Jnr. and Larder

ANSWERS: Task Two

Each of the following cryptic clues starts with the last letter of the previous clue. The number of letters in each word is indicated within brackets. If in doubt look up the words (starting with the given letter) in your Dawson's dictionary. When you have completed this task, the letters in the squares marked with an asterisk (*), unravelled, will spell out a clue which you can eliminate.

A	B	A	C	U	S	U	M	A	S*	S	C	O	R*	E
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- | | |
|----------------------------------|---------------------------------------|
| 1. a) An ancient calculator. (6) | b) The result of addends (3) |
| c) A whole lot of weight (4) | d) The value of two cross Romans. (5) |

P	A	L	I	N	D	R	O	M*	I	C	E	N	S	U	S
---	---	---	---	---	---	---	---	----	---	---	---	---	---	---	---

- | | |
|--|---|
| 2. a) Multiples of 11 from 1 to 9 are (11) | b) A survey resulting in the number of people (6) |
|--|---|

A	R	E	A	X	I	S	Y	M	B*	O	L	I	N	E
---	---	---	---	---	---	---	---	---	----	---	---	---	---	---

- | | |
|--|--|
| 3. a) (Two-dimensional figure) ² =(4) | b) Maybe vertical or horizontal. Maybe x or y. (4) |
| c) Maths abbreviated (6) | d) ↔ decoded |

P	E	N	T	A	G	O*	N	E	T	W	I	N	S
---	---	---	---	---	---	----	---	---	---	---	---	---	---

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|---|---|
| 4. a) A very important American polygon (8) | b) A 2-dimensional figure into a 3-dimensional figure (3) |
| c) A delivery of two at once. (5) | |

B	R*	E	A	D	T	H	E	C	T	A	R	E	D	G	E
---	----	---	---	---	---	---	---	---	---	---	---	---	---	---	---

- | | |
|--|--|
| 5. a) Missing in action! L x <input style="width: 20px; height: 15px;" type="text"/> = A | b) 10 000m ² identified (7) |
| c) Where two faces meet. (4) | |

P	R	I	S	M	O	N	T	H	E*	X	A	G	O	N
---	---	---	---	---	---	---	---	---	----	---	---	---	---	---

- | | |
|--|------------------------------|
| 6. a) A solid polygon. Maybe a Δ or a <input style="width: 30px; height: 15px;" type="text"/> . | b) May be one, or March! (5) |
| c) Half a dozen sides and (3 x 2) angles (7) | |

P	I*	N	T	W	O	F	R	E	Q	U	E	N	C	Y
---	----	---	---	---	---	---	---	---	---	---	---	---	---	---

- | | |
|----------------------------------|-----------------------------------|
| 7. a) Four British gills. (4) | b) Value of a brace (3) |
| c) Multiplication in a word. (2) | d) The graph most often used? (9) |

S	E	M	I	N	C	H	Y	P	O	T*	E	N	U	S	E
---	---	---	---	---	---	---	---	---	---	----	---	---	---	---	---

- | | |
|--|-----------------------------|
| 8. a) A half prefixed (4) | b) Small British creep! (4) |
| c) Right angle Δ 's diagonal (10) | |

B	A	R	H	O	M*	B	U	S	C	A	L*	E	N	E
---	---	---	---	---	----	---	---	---	---	---	----	---	---	---

- | | |
|---|-----------------------------|
| 9. a) A graph that records the frequency of drinkers? (3) | b) A square gone wrong! (7) |
| c) A Δ that lies NE of a weighing device (7) | |

O	P	E	R	A	T	I	O*	N	I	L	A	T	E	R	A	L
---	---	---	---	---	---	---	----	---	---	---	---	---	---	---	---	---

- | | |
|---|--------------------------|
| 10. a) Doctor's term for =, -, x and \div (9) | b) It's not natural! (3) |
| c) It's a face not a base. (7) | |

Eliminate: Mrs I. M. Brootel

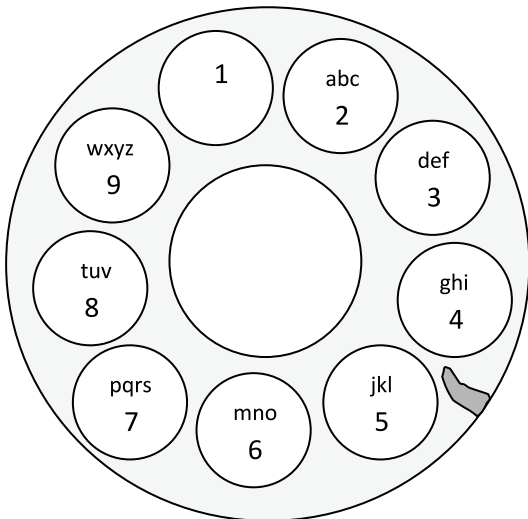
ANSWERS: Task Three

All I.Q. scores must be rounded off to the nearest whole number.

(a)	Suspect 1:	IQ level is 5% higher than that of Suspect 7.	140
	Suspect 2:	IQ level is 15% lower than that of Suspect 9.	95
	Suspect 3:	IQ level is 5% higher than that of Suspect 10.	90
	Suspect 4:	IQ level is 10% lower than that of Suspect 3.	81
	Suspect 5:	IQ level is 5% higher than that of Suspect 8.	96
	Suspect 6:	IQ level is 102.	102
	Suspect 7:	IQ level is 40% higher than that of Suspect 2.	133
	Suspect 8:	IQ level is 35% lower than that of Suspect 1.	91
	Suspect 9:	IQ level is 10% higher than that of Suspect 6.	112
	Suspect 10:	IQ level is 10% lower than that of Suspect 5.	86

(b) Two suspects with lowest IQ's: Suspect 4 and Suspect 10

(c) You only need to decode the two suspects that you believe have the lowest IQ's.



- Suspect 1: Eliminated by Sir Dawson
- Suspect 2: 3 8 6 6 4 8 8
- Suspect 3: 2 7 6 6 8 3 8
- Suspect 4: 8 4 6 5 3 9
- Suspect 5: 3 7 2 2 7 3 6 8
- Suspect 6: Eliminated by Sir Dawson
- Suspect 7: 6 6 8 7 3 9
- Suspect 8: 7 3 3 7 6 6
- Suspect 9: 4 6 6 3 3
- Suspect 10: 4 4 5 8 3 3

D U N N I T T

Tinley

Giltee

ELIMINATE: Tinley and Giltee

ANSWERS: Task Four

									FINISH ▼
X	T	E	V	E	N	I	R	C	E
I	Y	S	T	E	T	H	T	H	N
S	I	N	Y	N	I	O	Y	N	I
E	N	T	Y	S	N	N	E	Y	T
O	E	H	X	I	T	H	F	A	R
W	I	G	F	T	Y	G	O	R	I
T	N	I	O	R	N	I	E	T	H
Y	E	N	Y	T	I	V	E	Y	T
T	S	E	M	R	N	L	T	Y	T
N	E	V	H	I	E	E	W	I	R
B	U	R	T	E	S	T	Y	H	T
F	O	E	R	V	E	N	S	I	X
START ▲									

Remember the rules for the order of operations!

a) $3\frac{2}{5} + 1\frac{1}{2} \div \frac{3}{4} - 1\frac{2}{5} = \text{FOUR}$

b) $42 - 5 \times 1,25 + 3,25 = \text{THIRTY NINE}$

c) $10^2 - 5^2 - \sqrt{9} = \text{SEVENTY TWO}$

d) $35\% \text{ of } 200 + 2^4 = \text{EIGHTY SIX}$

e) Area of a square: $S = 7\text{m}$ FORTY NINE

f) $\text{LII} + \text{IV} \times \text{VI} = \text{SEVENTY SIX}$

g) $0,2\text{m} \times 150 = \text{THIRTY}$

h) $8 \text{ litres} \div \frac{2}{3} = \text{TWELVE}$

i) No. of degrees in 2 revolutions \div No. of degrees in a right angle = EIGHT

j) 5^{th} prime no. \times 4^{th} composite no. = NINETY NINE

k) $(20 + 6) \times 2 + 3 \times 5 = \text{SIXTY SEVEN}$

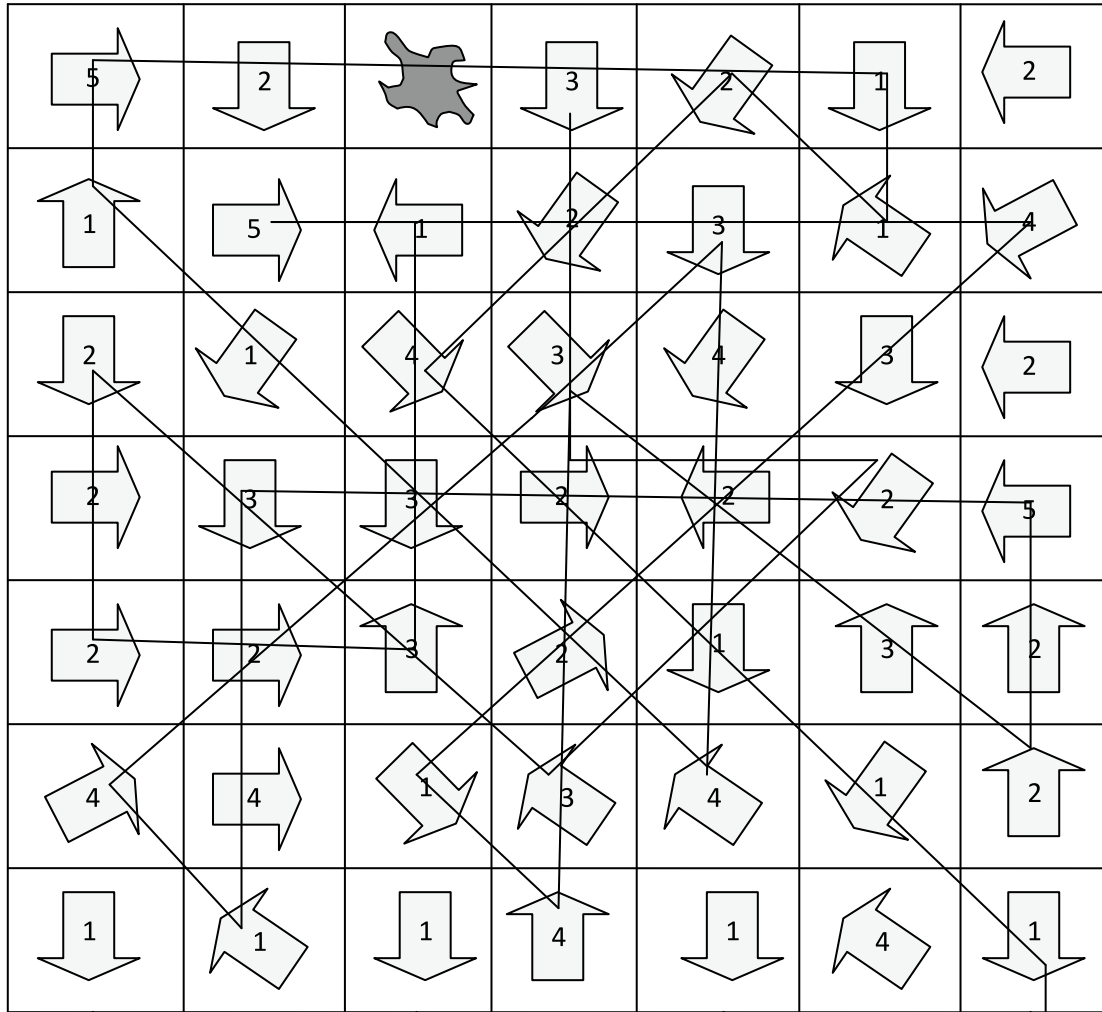
l) Sum of the factors of 16 = THIRTY ONE

m) L.C.M of 2, 5 and 8 = FORTY

n) $\sqrt{676} + \text{a baker's dozen} = \text{THIRTY NINE}$

LOCATION ELIMINATED: CHAMBER

ANSWERS: Task Five



Lady May despised her brother, but 'twas not her..... 'twas another!

Where this dastardly deed took place, they did not chance upon a mace!

The boudoir was a room so fair, but no crime was committed there.

'Twas not a weapon with a blade that laid this gent within his grave.

Eliminate: Sabre and Rapier

ANSWERS: Task Seven

	No. of inmates	Female	Male
Pietermaritzburg	40	20	20
Durban	20	5	15
Greytown	15	5	10
Escort	15	5	10
Underberg	10	5	5

	No. of women	25 - 45	45 - 60	60+
Pietermaritzburg	20	10	5	5
Durban	5	5		
Greytown	5	5		
Escort	5	5		
Underberg	5	5		

	No. of men	25 - 45	45 - 60	60+
Pietermaritzburg	20	5	10	5
Durban	15	5	5	5
Greytown	10	5		5
Escort	10	5		5
Underberg	5	5		

No. of men over 60: 10 **20** 25 30
Eliminate: Banquet Hall **Parlour** Billiard Room Reception Hall

ANSWERS: Task Eight

Player 1: Ends on square 61 RIP

Player 2: Ends on square 44 RIP

Player 3: Winner

Player 4: Ends on square 44 RIP

Player 3: "Although the Honourable was Notsew, 'tis known he wouldn't stoop so low!"

Elimination: Hon. E.S. Notsew

ANSWERS: Task Nine

2 Spades	3 Spades	4 Clubs
9 Diamonds	Queen of Clubs	Queen of Hearts
10 Clubs	9 Hearts	5 Diamonds

Eliminate: N.O.Goode

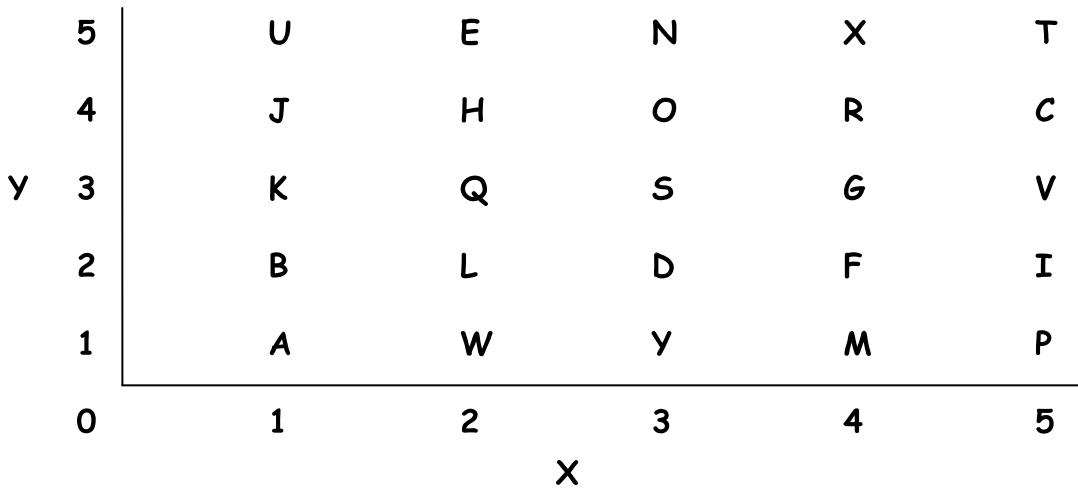
ANSWERS: Task 10

Reading the minute hand on each clock from left to right, top to bottom:

15 minutes past ∴ O
11 minutes to ∴ K
19 minutes to ∴ S
15 minutes past ∴ O
5 minutes past ∴ E
23 minutes past ∴ W
18 minutes past ∴ R
18 minutes to ∴ R
3 minutes to ∴ C
2 minutes past ∴ B
15 minutes to ∴ O
16 minutes to ∴ P
19 minutes past ∴ S

Eliminate: Crossbow and Poker

ANSWERS: Task Eleven



Unravel the following letters to reveal two names: T E W W E S O T R N Y A

Eliminate: Notsew and Trayew

ANSWERS: Task 12

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
4	20	11	16	24	2	25	8	5	19	22	13	26	6	1	15	12	14	7	3	17	9	18	23	21	10

*As for location, your final key ...
The room contained no "K" or "B"*

Eliminate: Billiard Room, Boudoir and Reception Hall

Elimination Table

Suspects	Weapons	Locations
Hugh Dunnitt Jnr. (Prodigal son) Eliminated; TASK 1	Crossbow Eliminated: Task 10	Parlour Eliminated: TASK 8
Lady Ida Reeson (Ex-wife)	Musket Eliminated: TASK 6	Banquet Hall Eliminated: TASK 8
Mrs. I.M. Brootel (Retrenched House-Keeper) Eliminated: TASK 2	Rapier Eliminated: TASK 5	Boudoir Eliminated: TASK 12
Count N.O.Goode (Gambling Partner) Eliminated: TASK 9	Mace Eliminated: TASK 6	Upper Chamber Eliminated: TASK ____
The Honourable E.S.Notsew (Crooked Family Lawyer) Eliminated: TASK 7	Croquet Mallet Eliminated: TASK 6	Conservatory
Lady May B.Giltee (Jealous Sister) Eliminated: TASK 3	Sabre Eliminated: TASK 5	Billiard Room Eliminated: TASK 12
Sir Tinley U.R. Suspected (Betrayed Friend) Eliminated: TASK 3	Pistol	Reception Hall Eliminated: TASK 12
Wilbur Trayew (Untrustworthy Gardener) Eliminated; TASK 11	Poker Eliminated: TASK 10	Larder Eliminated: TASK 1
MURDERER: Lady Ida Reeson WEAPON: Pistol LOCATION: Conservatory		



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