

The Mystery of the Underground Blackout Theft

During rush hour last night, all was not quiet as the London Underground was packed with commuters going home.

However, things were made even more complicated when all of a sudden all the lights and electric went out for 6 and a half minutes.

When they came back on, the ticket machines at one of the main line stations had all been broken into and the money stolen.

You are the chief detective in charge of the case. The Scenes of Crime Officers (SOCOs) and you need to find the culprit so that an incident like this does not happen again and the stolen money can be returned.

The fact that the lights were turned off while the theft was happening has pointed you towards someone who works on the underground as access to the electrics is for staff only.

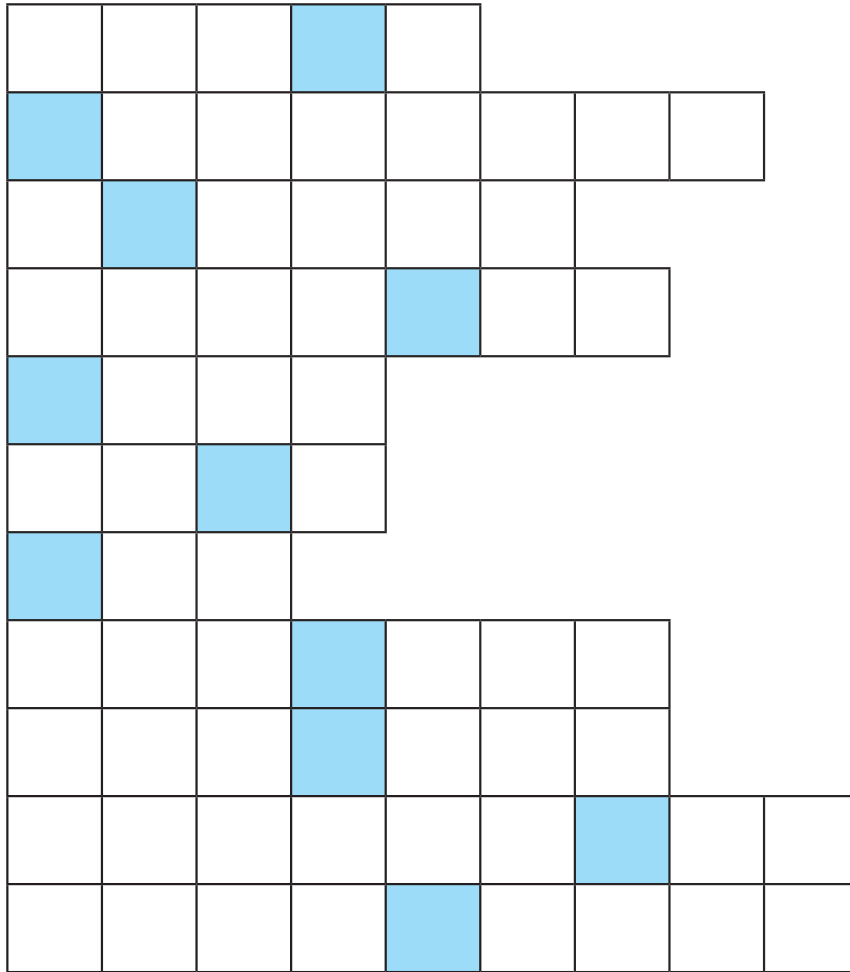
Solve the following clues to eliminate all but one of the suspects listed based on their gender, the underground line they work on, the colour of the line, their height, and the zone they were working in.



Name	Gender	Underground Line	Line Colour	Station Zone	Height
Angie Angel	F	Central	Red	2	1.76m
Aiden Aldgate	M	Victoria	Light Blue	4	1.90m
Brittany Bakerloo	F	Circle	Yellow	1	1.84m
Bob Bank	M	Northern	Black	5	1.65m
Charity Circle	F	District	Green	6	1.74m
Carlos Central	M	Piccadilly	Dark Blue	2	1.92m
Daisy District	F	Circle	Yellow	3	1.64m
Django Docklands	M	District	Green	5	1.80m
Edgar Edgware	M	Central	Red	1	1.63m
Eunice Euston	F	Piccadilly	Dark Blue	6	1.72m
Franco Finsbury	M	Victoria	Light Blue	4	1.71m
Florence Farringdon	F	Bakerloo	Brown	6	1.66m
Gwyneth Greenwich	F	Northern	Black	2	1.88m
Guy Goodge-Street	M	Bakerloo	Brown	5	1.74m
Harry Hammersmith	M	Circle	Yellow	4	1.66m
Holly Holland-Park	F	Piccadilly	Dark Blue	1	1.73m
Ibury Islington	M	District	Green	6	1.95m
Isla Ickenham	F	Northern	Black	3	1.70m
Jack Jubilee	M	Central	Red	2	1.61m
Jill-sden Junction	F	District	Green	6	1.85m
Kezia Kings-Cross	F	Victoria	Light Blue	1	1.86m
Karim Knightsbridge	M	Bakerloo	Brown	5	1.71m
Lavinia Limehouse	F	Circle	Yellow	4	1.77m
Lee Leicester-Square	M	Piccadilly	Dark Blue	3	1.84m
Maisie Monument	F	Northern	Black	1	1.64m
Marcus Metropolitan	M	Central	Red	5	1.82m
Nathan Northern	M	Victoria	Light Blue	3	1.91m
Nadia Notting-Hill-Gate	F	District	Green	1	1.60m
Owen Olympia	M	Circle	Yellow	4	1.83m
Oxford-Circus	F	Piccadilly	Dark Blue	6	1.75m
Patrick Piccadilly	M	Central	Red	2	1.82m
Paige Putney	F	Victoria	Light Blue	3	1.94m

Clue 1

You have found a clue about the culprit's gender. Solve the problems below and fill the answers in the grid. The shaded squares of the puzzle will reveal whether the thief is male or female.



1. An angle less than 90° .
2. A seven-sided 2D shape.
3. Another name for a line of reflection is a _____ line.
4. A triangle with no sides that are the same.
5. The 2D surface of a 3D shape.
6. The vertical line on a grid is called the y-_____.
7. The number of sides on a hexagon.
8. A four-sided shape with all sides the same length but no right angles.
9. A nine-sided shape.
10. A triangle with two sides the same length.
11. A quadrilateral with only one pair of opposite parallel lines.

Clue 2

On closer inspection of the control room where the electric was switched off, you have noticed that it is only possible to reach the switch fully if the perpetrator was over a certain height as there is nothing with which to reach and nothing on which to stand.

Identify the minimum height of the criminal by solving the calculations below. The correct answer will appear three times.

1.
$$\begin{array}{r} 7.62 \\ - 5.93 \\ \hline \\ \hline \\ \hline \end{array}$$

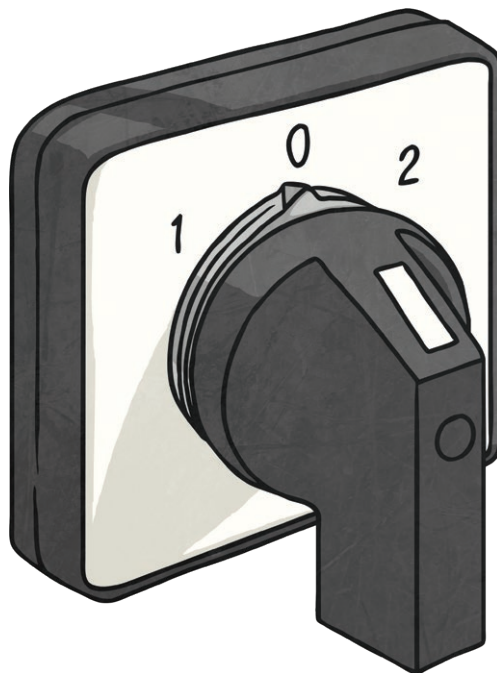
2.
$$\begin{array}{r} 6.68 \\ - 4.87 \\ \hline \\ \hline \\ \hline \end{array}$$

3.
$$\begin{array}{r} 9.06 \\ - 7.47 \\ \hline \\ \hline \\ \hline \end{array}$$

4.
$$\begin{array}{r} 8.50 \\ - 6.81 \\ \hline \\ \hline \\ \hline \end{array}$$

5.
$$\begin{array}{r} 5.13 \\ - 3.32 \\ \hline \\ \hline \\ \hline \end{array}$$

6.
$$\begin{array}{r} 4.00 \\ - 2.19 \\ \hline \\ \hline \\ \hline \end{array}$$



Clue 3

You have looked at the map of the underground station where the money was stolen and have narrowed down the underground lines to where the culprit could work.

Solve the Sudoku below then add up the numbers in the shaded squares. Find the total that corresponds to the underground line where the culprit works.

Fill in the blank squares with digits from 1 to 6, making sure that there are only one of each digit per row, per column and per rectangle.

Total	4	5	6	7	9	10	12
Line Colour	Red	Light Blue	Yellow	Black	Green	Dark Blue	Brown

1		5			3
2	3	6		4	5
6	1	4			
5	2		4	1	6
	5		2	6	4
		2		5	

Clue 4

You have found that the room where the electricity was turned off was only accessible to people working on a certain line.

To find which line that is, find all the prime numbers up to 100 (excluding 79 and 83) in this word search and the remaining letters will spell out the answer.

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

Clue 5

The final clue was found by you; amazingly, it was lodged in one of the ticket machines. The robber was working in the dark so probably didn't notice their zone pass fall out of their pocket.

To reveal in which zone they worked, find the answers to the calculations. The answers that are even can be shaded in the grid below revealing a number at the end.

(Odd answers are useless to you.)

1. $30 \times 4 =$ _____

2. $29 \times 3 =$ _____

3. $120 \div 6 =$ _____

4. $1.5 + 3.5 =$ _____

5. $1.8 \times 5 =$ _____

6. $280 \div 10 =$ _____

7. $1.12 \times 100 =$ _____

8. $33 - 22 =$ _____

9. $900 \div 10 =$ _____

10. $1.04 \times 100 =$ _____

11. $1.5 \times 2 =$ _____

12. $87 \times 2 =$ _____

13. $107 \times 10 =$ _____

14. $3.15 + 5.85 =$ _____

15. $1.8 \times 10 =$ _____

16. $3200 \div 10 =$ _____

17. $0.02 \times 100 =$ _____

18. $100 - 76 =$ _____

19. $4^2 =$ _____

20. $2^3 =$ _____

4000	40	22	300	1006	34	990	2000	12
66	26	98	1070	112	24	1700	14	502
230	700	20	140	404	4	2	660	310
52	308	870	1020	3200	760	120	44	302
880	1200	520	770	2018	8	706	2220	1050
80	58	3020	24	90	50	1000	102	808
1740	28	1500	320	1350	88	30	900	10
400	350	18	28	174	16	104	22	42
6	490	38	76	1400	100	2004	380	600

The Confession

When the culprit was finally caught, the money was returned and they had this to say...

x	12	9	7	3	20	6	8	4	30	5
10	O	M	@	R	Q	V	N	A	L)
5	V	F	:	C	#	R	A	(@	=
4	B	E	G	-	N	H	D	W	O	+
7	"	!	Z	I	\	S	.	G	\$:
9	U	[	!	Δ	T	Δ	Y	E	<	F
100	K	/	£	L	&	J	%	>	P	'
3	E	Δ	I	~	V	,	H	-	M	C
8	]	Y	.	H	*	B	X	D	?	A
12	'	U	"	E	?	Y	"	B	;	V
6	Y	Δ	S	,	O	E	B	H	T	R

21	32	120	80	144	180

30	36	90	36	90	48	36	30	40	180	24	21	80	28

21	90	108	42	180	24	40	60	36

500	48	300	40	15	1200	36	32	120	108	180	144	63