## The Mystery of Cinema Suspects

It is the premier of the new film 'Rambunctious Me 4', but during the screening, the film was switched for an old copy of 'Jaws 2' and the highly prized 'Rambunctious Me 4' was nowhere to be seen.

The alarm was raised (well everyone in the auditorium had noticed the film stop anyway), the house lights went up and there was mayhem, so it was impossible to see who was where.

The TV cameras were there filming people going in and the cinema's CCTV caught a number of people passing through the doorway during the film. The cinema also has records of who was sitting on which row.

You have been called in as the leading detective on the case and you have a team of Scene of Crime Officers (SOCOs) to assist you. Solve the following clues to eliminate all but one of the following suspects based on their gender, hair colour, shoe type, the row of their seat and the reason they left the auditorium during the film.

Good Luck ...
the producers of 'Rambunctious Me 4' are depending on you!


The Mystery of Cinema Suspects

| Name | M/F | Hair Colour | Reason not in Seat | Shoe Size | Seat Row |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Antonio Andrews | M | Brown | Went for drinks | 8 | A |
| Angelina Affleck | F | Brown | Didn't leave seat | 9 | E |
| Brad Bloom | M | Grey | Visited toilet | 7 | B |
| Bette Bean | F | Brown | Didn't leave seat | 8 | A |
| Carrie Cruise | F | Ginger | Arrived late | 6 | E |
| Clint Clooney | M | Blonde | Went for drinks | 7 | C |
| Demi De Vito | F | Black | Didn't leave seat | 4 | F |
| Dev Depp | M | Ginger | Visited toilet | 5 | D |
| Ethan Elba | M | Brown | Left early | 8 | C |
| Emma Eccleston | F | Blonde | Didn't leave seat | 6 | A |
| Farrah Fisher | F | Brown | Went for drinks | 9 | B |
| Feroz Fassbender | M | Ginger | Arrived late | 6 | E |
| George Guinness | M | Grey | Didn't leave seat | 7 | G |
| Goldie Gosling | F | Black | Visited toilet | 7 | A |
| Harrison Hanks | M | Brown | Visited toilet | 4 | G |
| Hallé Hogan | F | White | Went for drinks | 5 | D |
| Idris Ice-Cream | M | Blonde | Didn't leave seat | 9 | B |
| Imelda Intermission | F | Ginger | Arrived late | 6 | F |
| Jude Jolie | M | Brown | Didn't leave seat | 8 | C |
| Judy Johansson | F | Brown | Visited toilet | 5 | G |
| Kiefer Knightly | M | Black | Left early | 5 | B |
| Keira Kutcher | F | Blonde | Went for drinks | 10 | D |
| Liza Lopez | F | Black | Left early | 6 | A |
| Leonardo Law | M | Brown | Visited toilet | 10 | A |
| Marilyn Moore | F | Ginger | Didn't leave seat | 9 | D |
| Morgan Mirren | M | Grey | Didn't leave seat | 4 | C |
| Nicolas Newton-John | M | Brown | Left early | 7 | F |
| Naimh Norton | F | Blonde | Went for drinks | 5 | A |
| Orlando O'Neill | M | Brown | Visited toilet | 7 | G |
| Olivia Olsen | F | Brown | Didn't leave seat | 10 | E |
| Patty Patel | F | Grey | Went for drinks | 6 | B |
| Patrick Pattinson | M | Blonde | Visited toilet | 8 | A |

## Clue 1

The SOCOs have found that the perpetrator must have cut their hand on a sharp corner of the projector when they were stealing the films. This was analysed and uncovered the following information. To unravel the clue, find the words described below in the word search. At the end, the unused squares will spell out the clue.

- A triangle with all sides equal
- Number of sides on a hexagon
- The square root of 49
- An angle less than $90^{\circ}$
- The distance across the widest part of a circle
- Eight sided shapes
- Two lines that are the same distance apart
- Lines that are at $90^{\circ}$ to each other
- Four-sided shape with two sets or parallel lines, no right angles and all sides the same length.
- An angle larger than $90^{\circ}$ but less than $180^{\circ}$
- A 3D shape with two circular faces and no vertices
- The measurement around the edge of a 2D shape
- A triangle with no sides the same
- Half a sphere
- The top number of a fraction
- A 3D shape with a square base and four other triangular faces
- The shape of dice
- A type of diagram with circles and sets
- A number only divisible by itself and 1
- The proper name for a corner of a 3D shape
- The most popular number in a set of data
- One of the main lines of a graph either called $x$ or $y$
- Old measurement such as miles or pounds
- $1 \%$ of $£ 1$
- One tenth of a centimetre
- One thousandth of a KG


| $p$ | $e$ | $r$ | p | $e$ | n | d | i | c | $u$ | l | a | $r$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $e$ | c | q | $e$ | $r$ | $e$ | h | $p$ | S | i | m | $e$ | h |
| $r$ | n | p | $u$ | n | $e$ | $v$ | $e$ | s | $u$ | t | b | 0 |
| i | $u$ | y | $u$ | i | l | $p$ | $e$ | m | i | $r$ | p | m |
| m | m | $r$ | c | y | l | i | n | d | $e$ | $r$ | a | b |
| $e$ | $e$ | a | $u$ | s | C | a | l | $e$ | n | e | $r$ | $u$ |
| t | $r$ | m | b | i | $r$ | i | t | t | i | x | a | s |
| $e$ | a | i | $e$ | x | $e$ | t | $r$ | e | $v$ | i | l | s |
| $r$ | t | d | i | a | m | $e$ | t | $e$ | $r$ | s | l | n |
| m | 0 | d | $e$ | m | a | $e$ | t | u | C | a | $e$ | n |
| g | $r$ | a | m | i | m | p | $e$ | $r$ | i | a | l | $e$ |
| m | i | l | l | i | m | $e$ | t | $r$ | $e$ | l | $e$ | v |
| p | $e$ | n | n | y | S | n | 0 | g | a | t | C | 0 |

## Clue 2

On the door frame of the projection room, the SOCOs have found some hair snagged from the culprit. They need to do some further investigation but it does tell them something...

Below are some calculations but unfortunately the answers are wrong. Work out the calculations and find out which one or two digit number is wrong and those wrong digits will give you a letter that spells out a clue using the code $1=A, 2=B, 3=C$ etc.

1. $14 \times 3=48$
2. $156+245=411$
3. $399-77=329$

4. $2000 \div 5=418$
5. $12 \times 15=190$
6. $654+123=719$
7. $1000-97=914$

8. $1344 \div 6=215$
9. $1101 \times 3=3320$
10. $1984+1995=3929$

11. $5000-349=4618$

12. $414 \div 18=15$
13. $120 \times 12=1230$

14. $299+399=614$



## Clue 3

The SOCOs have found part of a footprint in the projection room where the culprit had stood in some spilt ice cream.

There's not a whole footprint but the SOCOs can work out a rough size for the print.
Solve the Sudoku below and add up the numbers in the shaded squares to give the smallest shoe size the culprit could be.

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.


## Clue 4

The SOCOs have traced the ice cream spill from clue 3 back to the auditorium so it has allowed them to work out roughly where the culprit was sitting.

You can find their answer by solving the algebraic equations to find out the value of each letter below.

Then you will be able to solve the clue.

| Algebraic Expressions | Answers |
| :---: | :---: |
| $a+6=10$ | $a=$ |
| $15-e=9+4$ | $e=$ |
| $a+e=i$ | i = |
| $10 \div e=1$ | l = |
| $\mathrm{m}=1 \times \mathrm{e}$ | $\mathrm{m}=$ |
| $(a-1)^{2}=n$ | $\mathrm{n}=$ |
| $e^{3}=0$ | 0 = |
| $r=\sqrt{ } \mathrm{n}$ | r $=$ |
| $s=\frac{m+a}{2}$ | S $=$ |
| $-7=t-8$ | $\mathrm{t}=$ |
| $\mathrm{r}^{2}+e=w$ | w = |

Clue:

$$
\begin{gathered}
3,8,11, \quad 5,2,1,1,2,3, \quad 7,4,10,2, \quad 4,7 \\
9,4,10,2, \quad 6,9,6,1,6,4,5,7
\end{gathered}
$$



## Clue 5

While you were looking at the CCTV, you could work out when and why the culprit left their seat.

Complete these reflections to show each letter and reveal the final clue. Be careful, the grey ones are tricky reflections, some of which might need parts reflecting on both sides of the mirror line!


## The Confession

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

| x | 12 | 9 | 7 | 3 | 20 | 6 | 8 | 4 | 30 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 0 | M | © | R | Q | V | N | A | L | ) |
| 5 | V | F | : | C | \# | R | A | $($ | @ | = |
| 4 | E | E | G | - | N | H | D | W | 0 | + |
| 7 | " | ! | Z | I | $\backslash$ | S | . | G | \$ | : |
| 9 | U | [ | ! | H | T | X | Y | E | < | F |
| 100 | K | / | £ | L | \& | J | \% | > | P | ' |
| 3 | E | V | I | $\sim$ | V | , | H | - | M | C |
| 8 | ] | Y | . | H | * | B | X | D | ? | A |
| 12 | , | U | " | E | ? | Y | " | B | ; | V |
| 6 | Y | A | S | , | 0 | E | B | H | T | R |


| 21 | 16 | 40 | 42 | 600 | 108 | 42 | 180 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |


| 16 | 40 | 80 | 180 | 21 | 80 | 28 | 180 | 120 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |


| 30 | 36 | 500 | 32 | 21 | 30 | 36 | 15 | 180 | 144 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |


| 180 | 24 | 36 | 90 | 120 | 60 | 21 | 36 | 63 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |

## The Mystery of Cinema Suspects - Answers

## Clue 1:

## culprit is male.

| p | $e$ | r | p | $e$ | n | d | i | C | u | 1 | a | r |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| e | c | q | $e$ | r | $e$ | h | $p$ | s | i | m | e | h |
| r | n | p | u | n | e | $v$ | e | s | u | t | b | 0 |
| i | u | $y$ | u | i | I | p | e | m | i | $r$ | p | m |
| m | m | r | c | y | 1 | i | n | d | e | r | a | b |
| e | $e$ | a | u | s | c | a | l | e | n | e | r | u |
| t | r | m | b | i | r | i | t | t | i | x | a | s |
| e | a | i | $e$ | x | e | t | r | e | $v$ | i | l | s |
| $r$ | t | d | i | a | m | $e$ | t | e | r | s | 1 | n |
| m | 0 | d | e | m | a | e | t | u | c | a | e | n |
| g | r | a | m | i | m | p | e | $r$ | i | a | 1 | $e$ |
| m | 1 | l | 1 | 1 | m | e | t | r | e | I | e | v |
| p | $e$ | n | n | y | s | n | $\bigcirc$ | g | a | t | C | 0 |

Clue 2:
hair is not brown.
$(8,1,9,18,9,19,14,15,20,2,18,15,23,14)$
Correct Answers are:

1. 42
2. 401
3. 322
4. 400
5. 180
6. 777
7. 903
8. 224
9. 3303
10. 3979
11. 4651
12. 23
13. 1440
14. 698

## The Mystery of Cinema Suspects - Answers

Clue 3:
Reveals: smallest shoe size 7

$$
(4+2+1)
$$

| 1 | 3 | 2 | 4 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 4 | 5 | 1 | 3 | 2 |
| 2 | 5 | 6 | 3 | 4 | 1 |
| 3 | 1 | 4 | 2 | 6 | 5 |
| 5 | 2 | 3 | 6 | 1 | 4 |
| 4 | 6 | 1 | 5 | 2 | 3 |

## Clue 4:

Spells: Row letter same as name initials
Using: $a=4, e=2, i=6, l=5, m=10, n=9, o=8, r=3, s=7, t=1, w=11$
Clue 5:
The clue reads: THE THIEF WENT FOR DRINKS
The Culprit:
Clint Clooney
The Confession:
I was just wanting to re 'direct' the movie!

| 21 | 16 | 40 | 42 | 600 | 108 | 42 | 180 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{I}$ | $\mathbf{w}$ | $\mathbf{a}$ | $\mathbf{s}$ | $\mathbf{j}$ | $\mathbf{u}$ | $\mathbf{s}$ | $\mathbf{t}$ |


| 16 | 40 | 80 | 180 | 21 | 80 | 28 | 180 | 120 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{w}$ | $\mathbf{a}$ | $\mathbf{n}$ | $\mathbf{t}$ | $\mathbf{i}$ | $\mathbf{n}$ | $\mathbf{g}$ | $\mathbf{t}$ | $\mathbf{o}$ |


| 30 | 36 | 500 | 32 | 21 | 30 | 36 | 15 | 180 | 144 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{r}$ | $\boldsymbol{e}$ | $\cdot$ | $\mathbf{d}$ | $\mathbf{i}$ | $\mathbf{r}$ | $\boldsymbol{e}$ | $\mathbf{c}$ | $\mathbf{t}$ | $\boldsymbol{}$ |


| 180 | 24 | 36 | 90 | 120 | 60 | 21 | 36 | 63 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{t}$ | $\mathbf{h}$ | $\boldsymbol{e}$ | $\mathbf{m}$ | $\mathbf{o}$ | $\mathbf{v}$ | $\mathbf{i}$ | $\boldsymbol{e}$ | $\boldsymbol{!}$ |

