



Halloween Mystery





Preface

On a spooky halloween evening, a child went missing whilst exploring the haunted church and cemetery on the annual halloween school trip.

You have been tasked to find the kidnapper and solve the crime. To do this you must collect the clues and evidence to ascertain who the kidnapper was and reunite the child with his parents before the clock strikes 12!



Suspects



1



2



3



4



5



6



7



8



9



10



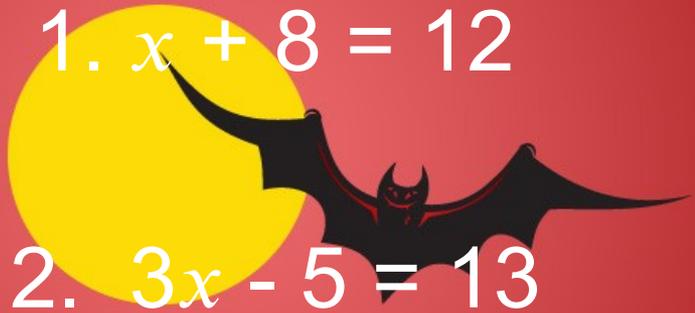


Clue Number 1

A blindfold was found to be missing from the school safe which has a 34 digit combination code. The suspects on the trip were interviewed one by one by the metropolitan police for hours, whilst attached to a lie detector.

The final digit of the code is 6; work out each suspects answer and eliminate any who did not know $x = 6$.

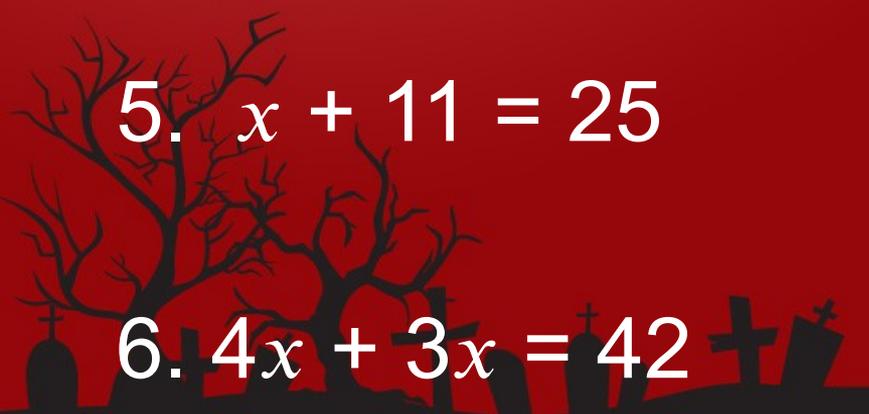



$$1. x + 8 = 12$$

$$2. 3x - 5 = 13$$

$$3. x + x = 12$$

$$4. x / 3 = 2$$


$$5. x + 11 = 25$$

$$6. 4x + 3x = 42$$

$$7. 5x + 5 = 37$$

$$8. 4x + 18 = 8x - 6$$

$$9. 10x = 66$$

$$10. x^2 = 36$$



Evaluation Form

Who was eliminated and why?

Give reasons for your answers

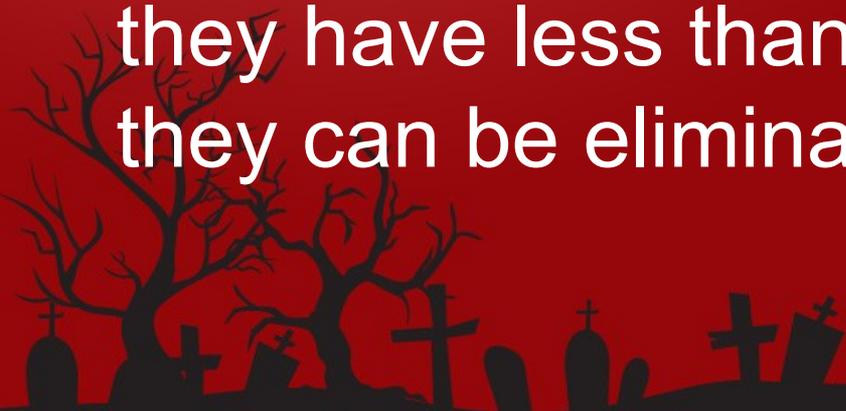


Clue Number 2

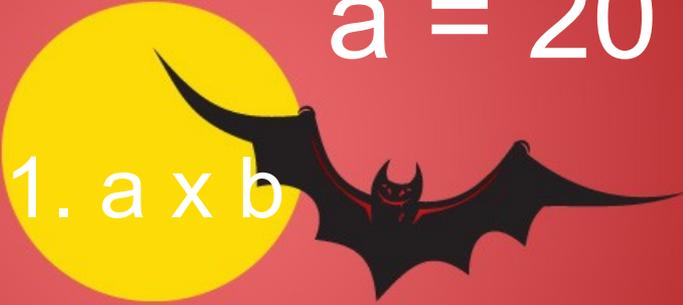


A random note was found where the student was last seen. The worried parents paid it hurriedly, against the advice of the police department.

The bank accounts of the suspects were examined by a financial forensic expert. If they have less than £500 in their accounts, they can be eliminated.



$$a = 20 \quad b = 10 \quad c = 25$$



1. $a \times b$

7. a^2

2. c^2

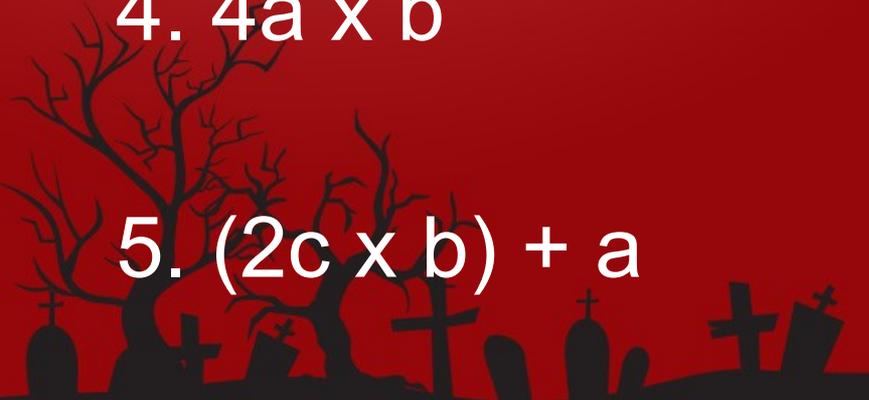
8. $7b \times 5a$

3. $c \times b$

9. $8c + 12b + 10a$

4. $4a \times b$

10. $(a)^2 + (b)^2$



5. $(2c \times b) + a$



Evaluation form



Who was eliminated & why

Give reasons for your answer





Clue Number 3



The kidnapped student had a mass of 80kg.

Only suspects which a strength number which is a factor of 80 would have been able to drag him away quickly without been observed by anyone.



1. 9

2. 32

3. 4

4. 20

5. 3

6. 40

7. 60

8. 6

9. 24

10. 16



Evaluation form



Who was eliminated & why

Give reasons for your answer



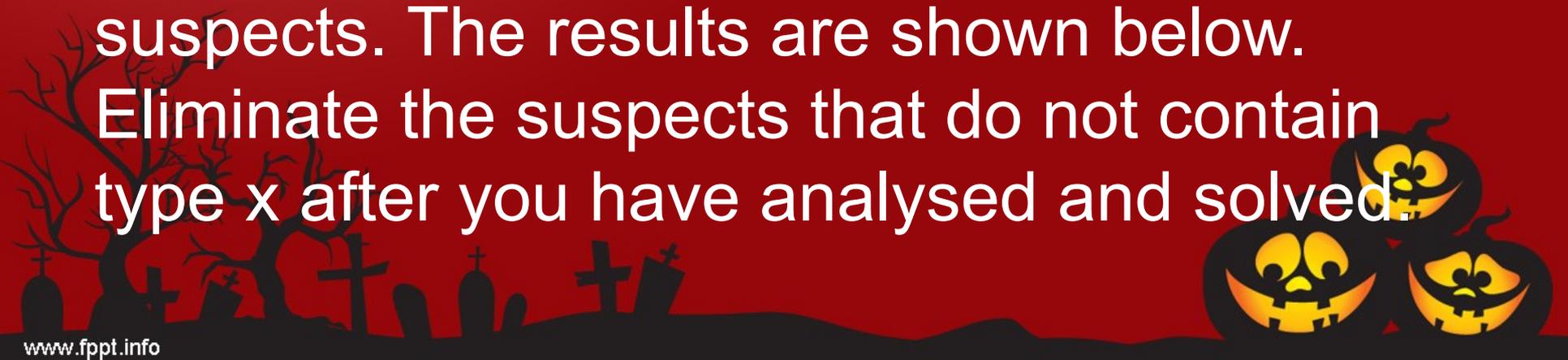


Clue Number 4

A bloodstained handkerchief was found at the entrance to the crypt. The crime scene investigators (CSI) were able to collect a sample of blood. Its type was found to be blood type x.

A sample of blood was taken from all the suspects. The results are shown below.

Eliminate the suspects that do not contain type x after you have analysed and solved.



Suspect 1: $4x + 7y - 4x$

Suspect 2: $2y - 2z + 3z + x$

Suspect 3: $5x - 3y + x - 5x$

Suspect 4: $2x + y + 2z - 2x$

Suspect 5: $3y + 2y + 3x - 2x$

Suspect 6: $8x - 7x + 5y - x$

Suspect 7: $3z - 3z + x$

Suspect 8: $7x + 8y + 2x - 10x$

Suspect 9: $9z + 2y - 9z$

Suspect 10: $2x - y + 2y$



Evaluation form



Who was eliminated & why

Give reasons for your answer



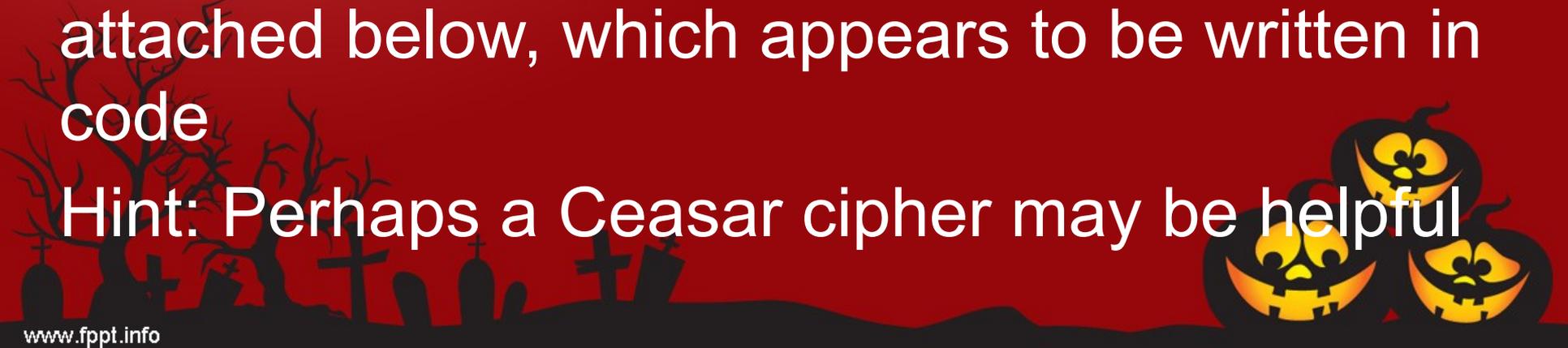


Clue Number 5

Detective Khan found a lead on the case, but before he was able to get back to the station to share it with the other officers he mysteriously went missing.

All that could be found was the note on the attached below, which appears to be written in code

Hint: Perhaps a Ceasar cipher may be helpful





ihdhyl. aol wlyzvu dov ohz
hikbjalk aol zabklua pz h
thsl.



Evaluation form

Who was eliminated & why

Give reasons for your answer





Clue Number 6

On Monday morning the officers received an anonymous phone call from a member of the public.

The missing student had been left, totally unharmed at the top of the church spire beside the bell.

A envelope was found attached to his chest, containing a note from the kidnapper.

Perhaps the note will reveal his/her identity?





Unfortunately the note was written in code, and would need to be deciphered before it would be read. In the note, each letter has been replaced with a number. Can you spot the pattern and unscramble the message to reveal who it was?

Hint. The chief inspector was able to partially solve it and discovered: $K = I$, $X = A$, $I = T$.





K XQ LMY YB UMY PTXI K TXEC JMNC. K
JKJ NMI QCXN IM SXFLC XNB
KNSMNECNKCNCS MY JKLIYCLL. K
TMWC BMF SXN UKNJ KI KN BMFY
TCXYI IM UMYVKEC QC. LKVNCJ
JYXSFOX





Evaluation form

There are no more clues. You should have been able to work out who the kidnapper was by now. If you have not go through all the clues again and see if you are able to reveal their identity.

Once you have finished answer the questions on the following page.



Clue one- Who was eliminated



Clue two- Who was eliminated

Clue three – Who was eliminated



- Clue four – Who was eliminated



- Clue five – Who was eliminated

- Clue six – Who was eliminated





The big reveal

The police were thankful for your efforts in revealing the kidnapper. They sent a large SWAT team to the residential address to apprehend them and bring them to the station for further questioning and to charge them.

The kidnapper will be revealed on the next slide, so brace yourselves!



