MURDER IN THE MATHEMATICS DEPARTMENT

A MURDER HAS BEEN COMMITTED IN THE MATHS DEPARTMENT AT A NEARBY SCHOOL.

YOUR JOB IS TO DECODE THE CLUES TO FIND

(A) THE IDENTITY OF **THE MURDERER**
(B) THE **MURDER WEAPON**
(C) THE **ROOM** IN WHICH THE MURDER TOOK PLACE

YOU MAY TAKE NOTES ON THIS PIECE OF PAPER AS YOU PROCEED THROUGH THE INVESTIGATION.

WHEN YOU HAVE FINISHED YOU MUST BE PREPARED TO JUSTIFY YOUR DECISIONS TO THE CLASS.

THE SEVEN **SUSPECTS** ARE:

MR BROOME
DR FRANCE
MR HALAI
MISS KAUR
MR SCOTLAND
MR SHEPPARD
MR SMITH

THE POSSIBLE **MURDER WEAPONS** ARE:

METRE RULER
CHAIR
SCISSORS
COMPASS
TEXTBOOK
PENCIL
STAPLER

THE **ROOM** IN WHICH THE MURDER WAS COMMITTED COULD BE:

16 23 24 25 28 29 COMPUTER ROOM

CODE 1 SAYS:

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CODE 2 SAYS:

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CODE 3 SAYS:

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CODE 4 SAYS:

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CODE 5 SAYS:

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CODE 6 SAYS:

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CODE 7 SAYS:

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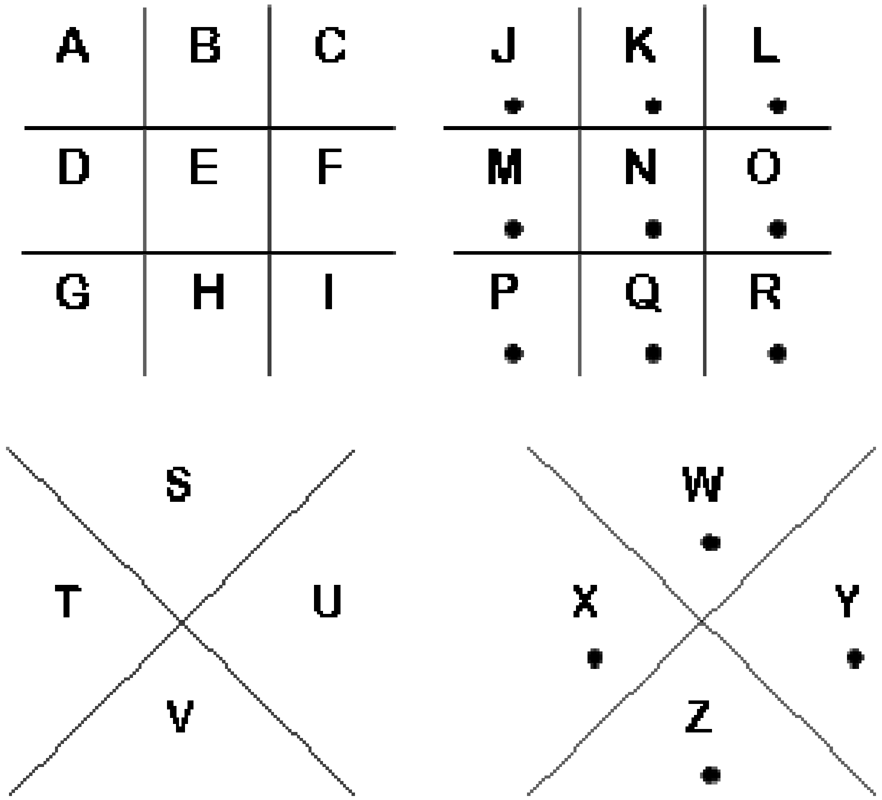
CODE 1: PIGPEN

This code uses the following **key**. You need to work out how to use the key to decode the message which follows.


A
B
C
D
E
F
G
H
I
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K
L
M
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O
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Q
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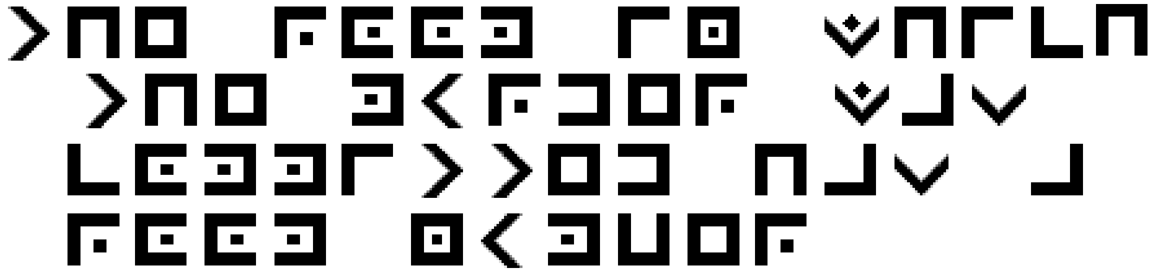
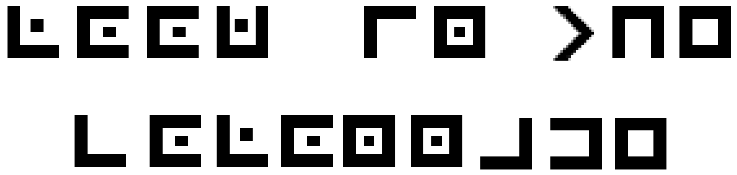
Z





CODE 2:POLYBIUS SQUARE

This code uses the following **key**. You need to work out how to use the key to decode the message which follows.

5	A	B	C	D	E
4	F	G	H	I	J
3	K	L	M	N	O
2	P	Q	R	S	T
1	U	V	W	X	Y/Z
	1	2	3	4	5

(5,2)(3,4)(5,5) (3,3)(1,1)(3,2)(4,5)(5,5)(3,2)(5,5)(3,2)
(4,5)(5,3)(5,5)(4,2) (4,3)(5,3)(5,2) (3,4)(1,5)(2,1)(5,5)
(1,5)(4,3) (5,5) (4,4)(4,3) (5,2)(3,4)(5,5)(4,4)(3,2)
(4,3)(1,5)(3,3)(5,5)

(5,2)(3,4)(5,5) (4,3)(5,5)(4,1)(5,2)
(3,5)(2,3)(1,1)(5,5) (4,4)(4,2) (2,5)(5,1)
(5,2)(3,4)(5,5) (3,3)(5,5)(5,2)(1,5)(2,3)
(4,2)(5,2)(1,5)(4,4)(3,2)(4,2)
(5,3)(1,2)(1,2)(5,3)(4,2)(4,4)(5,2)(5,5)
(5,2)(3,4)(5,5) (1,5)(3,5)(1,5)(4,5)(5,5)(3,3)(4,4)(3,5)
(5,5)(4,3)(2,4)(2,3)(4,4)(4,2)(3,4)
(2,5)(1,1)(4,4)(2,3)(4,5)(4,4)(4,3)(2,4)

CODE 3

Each letter is represented by a different number in a simple way, using the key a = 1, b = 2, c = 3, d = 4, etc.

20,8,5 13,21,18,4,5,18 23,1,19 14,15,20
9,14 1 16,18,9,13,5 14,21,13,2,5,18,5,4
18,15,15,13

20,18,25 12,15,15,11,9,14,7 21,14,4, 5, 18
20,8,5 20,18,5,5

CODE 4: ATBASH

Each letter is represented by a different letter in a simple way.

GSV ILLN MFNYVI RH Z NFOGRKOV
LU ULFI

MVZI GSV NVGZO TZGV YB GSV XLFIHV
LUURXV

CODE 5: CAESAR CIPHER

You will need a Caesar wheel to crack this code.

KYV DLIUVIVIJ ERDV NZCC KVCC PFL NYRK TFLEKIP YV ZJ WIFD

SP R SRX NFFUVE UFFI ZE KYV TFIEVI FW KYV HLRU

CODE 6: MORSE CODE

This code uses the following **key**. You need to work out how to use the key to decode the message which follows.

A	.–	**N**	–.
B	–...	**O**	–––
C	–.–.	**P**	.––.
D	–..	**Q**	––.–
E	.	**R**	.–.
F	..–.	**S**	...
G	––.	**T**	–
H	....	**U**	..–
I	..	**V**	...–
J	.–––	**W**	.––
K	–.–	**X**	–..–
L	.–..	**Y**	–.––
M	––	**Z**	––..

– .... . / .–. ––– ––– –– /–. ..– –– –... . .–.
/ .... .– ... /. .. ––. .... – /..–. .– –.–. – –
–– .–. ... /

.–.. ––– ––– –.– / –.. ––– .–– –. ... – .– ..
.–. ... / .. –. /– .... . / .– –.–. .– –.. .
–– .. –.–. / . –. ––. .–.. .. .. / –...
..– .. .–.. –.. .. –. ––. / –... ..– – / –. –––
– / .. –. / .– / –.–. .–.. .– ... .–. ––
– ––– ––

CODE 7: THE FINAL CHALLENGE

This looks disturbingly familiar, but there's something weird about it...

-.- -.. -.-. / --.- -..- ..-. / -- .-. --/
--.- -. / -- -..- / .-. -.-. / -.-- -. .-
--.- .--- -.-- -... / ..-. .-. -.-. --.- /
-... -..- ...- -. -.-. --.- .-. .- .--. /
-.-. --.- .--- -.-. / -... -.-. -.. --
-. .-- -.-. -... / .-.. .--- .-- / -...
.-. -.-. / -..- .-- /

CODE 7: THE FINAL CHALLENGE

This looks disturbingly familiar, but there's something weird about it...

-.- -.. -.-. / --.- -..- ..-. / -- .-. --/
--.- -. / -- -..- / .-. -.-. / -.-- -. .-
--.- .--- -.-- -... / ..-. .-. -.-. --.- /
-... -..- ...- -. -.-. --.- .-. .- .--. /
-.-. --.- .--- -.-. / -... -.-. -.. --
-. .-- -.-. -... / .-.. .--- .-- / -...
.-. -.-. / -..- .-- /

ONE LAST MESSAGE

Use all your cunning to break this final message left by the murderer. You might want to keep a track of which letters represent what using the provided grid.

XNFF OUMN! QUV SEKN TPULNM BSN AUON EMO AEVISB CN. WU TNRUPN H IU BU
GPHWUM H XHFF PNXEPO QUV XHBS E FHBBFN THB UR CQ LMUXFNOIN ETUVB
AUONW. BSNPN EPN CEMQ XEQW BU TPNEL E CNWWEIN BSEB SEW TNNM
NMAUONO VWHMI E AHGSNP. SUXNKNP, BSN TNWB XEQ BU EBBEAL WVAS E
CNWWEIN HW VWHMI RPNYVNMAQ EMEFQWHW. BSHW VWNW BSN REAB BSEB
NKNPQ FEMIVEIN SEW ANPBEHM FNBBNPW BSEB UAAVP CUPN RPNYVNMBFQ BSEM
UBSNPW. UR AUVPWN, MUB NKNPQ GHNAN UR BNJB SEW BSN WECN FNBBNP
OHWBPHTVBHUM, WU BSN GNPWUM TPNELHMI BSN AUON SEW BU VWN E ANPBEHM
ECUVMB UR HMINMVHBQ EMO GPUTFNC WUFKHMI WLHFFW BU APEAL BSN AUON.
BSHW HW XSQ BSN WAHNMAN UR APQGBUIPEGSQ HW EM EGGFHNO WVTDNAB UR
CEBSNCEBHAW.