

REDIET NEGASH

111820799

DECODED MESSAGE

PRESIDENT STANLEY WILL BE THE NEW UNITED STATES AMBASSADOR TO THE UNITED NATIONS THE POSITION HAS BEEN DEFINED SO THAT HE CAN ALSO CONTINUE AS THE PRESIDENT OF STONY BROOK UNIVERSITY HE ANNOUNCED THAT ALL UNEMPLOYEES AND THEIR CHILDREN WILL BE GIVEN FREE TUITION TO STONY BROOK THE UNIVERSITY WILL ALSO BE ESTABLISHING A NEW INSTITUTE FOR THE STUDY OF WORLD PEACE AND SUSTAINABILITY

DECODING MESSAGE

YIANTFAQW NWSQHAE VTHH BA WPA QAV KQTWAF NWSWAN SMBSNNSFUI WU
PRESIDENT STANLEY WILL BE THE NEW UNITED STATES AMBASSADOR TO
WPA KQTWAF QSWTUQN WPA YUNTWTUQ PSN BAAQ FAGTQAF NU WPSW PA OSQ
THE UNITED NATIONS THE POSITION HAS BEEN DEFINED SO THAT HE CAN
SHNU OUQWTQKA SN WPA YIANTFAQW UG NWUQE BIUUC KQTRAI NTWE
ALSO CONTINUE AS THE PRESIDENT OF STONY BROOK UNIVERSITY
PA SQQUKQIAF WPSW SHH KQAMYHUEAAN SAF WPATI OPTHFIAQ VTHH BA LTRAQ
HE ANNOUNCED THAT ALL UNEMPLOYEES AND THEIR CHILDREN WILL BE GIVEN
GIAA WKTWTUQ WU NWUQE BIUUC WPA KQTRAI NTWE VTHH WHNU BA ANWSBHTNPTQL
FREE TUITION TO STONY BROOK THE UNIVERSITY WILL ALSO BE ESTABLISHING
S QAV TQNWTKWA GUI WPA NWKFE UG VUIHF YASOA SQF NKNWSTQSBTHTWE
A NEW INSTITUTE FOR THE STUDY OF WORLD PEACE AND SUSTAINABILITY

COUNTS OF LETTERS: FIRST KEY WORD- EDUCATE, SECOND KEY WORD- CLAN

```
{ 'A': 42, 'B': 9, 'C': 2, 'D': 0, 'E': 8, 'F': 13, 'G': 4, 'H': 17, 'I':  
13, 'J': 0, 'K': 11, 'L': 2, 'M': 2, 'N': 25, 'O': 4, 'P': 14, 'Q': 30,  
'R': 3, 'S': 21, 'T': 28, 'U': 23, 'V': 6, 'W': 37, 'X': 0, 'Y': 5, 'Z':  
0 }
```

1st Highest cnt : A~ E, 2nd highest cnt: W ~ T, 3rd highest cnt: Q. I think WPA - OCCURS 8 times so P must be H. N- is unique from the frequent letters- 90% of the time it is preceded by a vowel HENCE Q= N

GIVEN ORIGINAL CODE

ATAAV QADYY WFSSA RXEHU DLWCC BAIMB TJCQN JUHAA UXBFP YSSWT
WHYAA XSEWN HBSJV FQAYA ALWYT JVFQC UYBNC BFNIE QNHYU JRDWC
CZSDU SNHQF QJVBK NUYWC CJINP EFNSH UTPHU DGMIH WNKDV CAVPE
WRRLS DSFKD QLEJR DWFJS KDCXY UWPAN PDQSY AAGKZ PGJQI NSGTU
JMAYV CADIT ANYVT JVFQJ WYVHS PBVWF CJRLK DVCAV PEWRX EHUUS
NHDLA AYDBU VYPGS WSDCG TDPHT JMHAT WTWCC YWXHP UTXFI UHJAF
QLSDH YKAYD TDUMT UVHE

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

ENCODING USING SECOND KEY WORD FOUND FROM STRIPS "CLAN"

ATAA VQAD YYWF SSAR XEHU DLWC CBAI MBTJ CQNJ UHAA UXBF PYSS WTWX YAAX
YIAN TFAQ WNWS QHAE VTHH BAWP AQAV KQTW AFNW SWAN SMBS NNSF UIWU WPAK
SEWN HBSJ VFQA YAAL WYTJ VFQC UYBN CBFN IEQN HYUJ RDWC CZSD USNH QFQJ
QTWA FQSW TUQN WPAY UNTW TUQP SNBA AQFA GTQA FNUW PSWP AOSQ SHNU OUQW
VBKN UYWC CJIN PEFN SHUT PHUD GMIH WNKD VCAV PEWR RLSD SFKD QLEJ RDWF
TQKA SNWP AYIA NTFA QWUG NWUQ EBIU UCKQ TRAI NTWE PASQ QUKQ IAFW PSWS
JSKD CXYU WPAN PDQS YAAG KZPG JQIN SGTU JMAY VCAD ITAN YVTJ VFQJ WYWH
HHKQ AMYH UEAA NSAF WPAT IOPT HFIA QVTH HBAL TRAQ HIAA WKTW TUQW UNWU
SPBV WFCJ RLKD VCAV PEWR XEHU USNH DLAA YDBU VYPG SWSD YDBU VYPG SWSD
QEBI UUCW PAKQ TRAI NTWE VTHH WHNU BAAN WSBH TNPT QLSQ WSBH TNPT QLSQ

AVTQ NWTW KWAG UIWP ANWK FEUG VUIH FYAS OASQ FNKN WSTQ SBTH TWE

Tri-Graph

I
2^{NA}
2^{UW}
BU
2^{AN}
QA
TO
FA
HA
BU
AN
UW
UH

S	T	U
WQ	2NF	FI
WW	VH	WH
WM	QW	TA
RN	QW	YV
NF	WU	TA
QW	2NW	NW
PN	WU	QO
PN	QO	WG
QO	QO	WG
QH	FI	IU
AN	PH	UC
AQ	VH	QK
PH	LR	HE
WH	KN	TR
NA	WU	WIN
NB	QR	NO
CA	NW	U
AD	VH	UC
AQ	PH	NR
WI	FO	FI
GB	VO	EG
	WW	VI
	SO	
	GL	
	HW	

TABLE of Encoding using 2nd key Word.

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

Diagram of most frequent letters

A	B	C	D	E	F	G	H	I	N	O	S	T	U
Set 1 IS F3 BA P6 Q4 W4 A4 R2 I3 AF4 N6 Q5 W2 Q3 F5 N3 K2 A4 G2 S4	Set 2 E2 S2 A4 U2	Set 3 W3 M1 V2 B2	Set 4 U2 A2 U2	Set 5 W3 A2 U2	Set 6 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 7 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 8 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 9 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 10 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 11 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 12 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 13 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2	Set 14 Q2 T5 H4 S2 Q4 H4 B2 N2 F2 T2

Handwritten musical notation on a page with three systems of staves. Each system contains a grand staff (treble and bass clefs) and a single staff with a key signature of one sharp (F#). The notation is written in black ink, with some red markings. The first system is labeled with a '2' and a 'C' (C major). The second system is labeled with a '2' and a 'C' (C major). The third system is labeled with a '2' and a 'C' (C major). The notation consists of various notes, rests, and bar lines, with some red markings indicating specific notes or measures.

1) I.e Guess 1 - 4 letter key word

$$= \frac{1}{N(N-1)} \sum k_i(k_i-1)$$

$$= 3 \times 2 + 5 \times 4 + 12 \times 11 + 2 + 3 \times 2 + 5 \times 4 + 5 \times 4 + 3 \times 2 + 2 + 3 \times 2 + 4 \times 3 + 10 \times 9 + 7 \times 6 + 2 + 4 \times 3$$

$$= \frac{386}{6,320} \quad (N-1)N = 75 \times 74$$

$$N = 75$$

$$= \frac{378}{5,550} = \underline{\underline{0.061075}}$$

2) Guess two - 5 letter key word

$$* = \frac{1}{N(N-1)} \sum k_i(k_i-1)$$

$$= 5 \times 4 + 2 + 5 \times 4 + 5 \times 4 + 2 + 6 \times 5 + 3 \times 2 + 4 \times 3 + 5 \times 4 + 3 \times 2 + 7 \times 6 + 7 \times 6 + 3 \times 2$$

$$N = 64$$

$$= \frac{228}{4032} = \underline{\underline{0.0565}}$$

4th letter 2nd words

$$* \Rightarrow 2 + 5 \times 4 + 3 \times 2 + 2 + 4 \times 3 + 3 \times 2 + 5 \times 4 + 4 \times 3 + 6 \times 5 + 4 \times 3 + 4 \times 3 + 5 \times 4 + 2 + 2 + 6 \times 5 + 5 \times 4 + 3 \times 2 + 10 \times 9$$

$$= \underline{304} \mid \underline{334} \mid 6480 =$$

$$N = 81$$

$$N-1 = 80$$

$$N(N-1) = 81 \times 80 = 6480$$

$$\Rightarrow \underline{\underline{0.051543209}}$$

5th letter 2nd words

$$= 5 \times 4 + 2 + 4 \times 3 + 3 \times 2 + 2 + 4 \times 3 + 4 \times 2 + 4 \times 3 + 2 + 4 \times 3 + 2 + 5 \times 4 + 4 \times 3 + 2 + 4 \times 3 + 3 \times 2 + 2 + 4 \times 3$$

$$= \underline{160}$$

$$64 \times 63 = 4032$$

$$\frac{160}{4032} = \underline{\underline{0.03968}}$$

Guess 4. 2nd letter

$$\frac{1}{N(N-1)} \sum_{i=1}^{N-1} i(i-1) =$$

$$8 \times 7 + 2 + 3 \times 2 + 4 \times 3 + 3 \times 2 + 6 \times 5 + 2 + 5 \times 4 + 5 \times 4 \\ 3 \times 2 + 3 \times 2 + 3 \times 2 + 5 \times 4 + 5 \times 4 + 4 \times 3 + 2 + 7 \times 6 \\ 4 \times 3$$

$$\frac{285600}{6006} = 0.0999 \dots$$

3rd 5th letter

$$1 \times 3 + 2 + 3 \times 2 + 6 \times 5 + 2 + 5 \times 4 + 2 + 5 \times 4 + 2 + 2 \\ + 2 + 4 \times 3 + 2 + 5 \times 4 + 2 + 3 \times 2 + 5 \times 4 + 2 + 3 \times 2 \\ = 170$$

$$N = 74$$

$$N-1 = 73$$

$$N \cdot (N-1) = 5402$$

$$I.C. = 0.03141$$

According to 3 I.C. calculator the
winner is Given of key word 4th