Hello everyone! Welcome to the BEAR SO Codebusters C Test!

The first question is the timed question. Teams will have up to ten minutes to answer it to receive bonus points as described in the rules. Click "Save answer" when you want to check the answer to the first question. It'll respond with Correct or Incorrect. If it's correct, the system will record the time of the latest time you click submit. Do NOT click "Save answer" again once it's correct because it'll record the latest time you click "Save answer"

1. (300.00 pts)   Decode the following K1 aristocrat which is a quote from Lux.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	0	4	9	3	9	12	7	2	2	4	11	3	0	0	0	4	8	13	6	0	6	10	6	0	1	0	1
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

G	J	Q	V	H	B	K		T	G	C	P	H	Q	X		C	U		G		R	E	K	P	Q	O	K	P	Q	P		Q	L		Q	R	F	C	I	U

F	E	G	F		J	C	U	R	B	G	Z	U		G		U	R	K	I	F	T	V	O		Q	L		B	C	D	E	F		J	V	K		F	Q		F	E	K

U	V	P		U	E	C	P	C	P	D		F	E	T	Q	V	D	E		J	T	Q	R	B	K	F	U		Q	L		O	Q	C	U	F	V	T	K		C	P

F	E	K		G	F	O	Q	U	R	E	K	T	K

2. (110.00 pts) Decode this Caesar encrypted text, which is a quote from Robert Orben

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	0	2	1	5	6	1	0	7	3	5	4	2	0	0	0	3	0	3	0	3	4	9	0	0	2	5	0
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

D U L U H   H Q Y I U   O E K H   X Q D T   J E   O E K H   S X Y B T H U D ;   Y J

;

B U Q L U I   O E K H   C Y T I U S J Y E D   K D F H E J U S J U T

3. (125.00 pts) Decode this quote from Zilean that has been encoded using a vigenere cipher with a keyword of ZILEAN

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

S Q X I F Y H   M D P I X D I   Y E R E N E Q   V U V S N W M   E F K Q V I B   N M I Y E

4. (100.00 pts) Encode the following joke using an affine cipher with a=15 and b=9.

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

A   c o u p l e   o f   b i o l o g i s t s   h a d   t w i n s .   T h e y   n a m e d

.

o n e   J e s s i c a   a n d   t h e   o t h e r   C o n t r o l .

.

5. (300.00 pts) Solve this Aristocrat.

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

U P J V J E H   P M   B T K   J W V H   M O P K W O K   P W   F T P O T

Q L V B P C V P O X B P J W   P M   B T K   M X Q K   B T P W E   X M   A P R P M P J W

6. (0.00 pts) Solve this quote from a certain mastermind that has been encrypted with a Pollux cipher given that 0=•, 2=•, 3=-, 9=X

723832936692738839000590647990080572846952054099382386522

82622459522882668080624294682264272835458655995289267

86669027806208620995228005087768277887563863645569875

93364437954262862 6587233!

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7. (145.00 pts) Encode the following quote from Jinx using a Vigenere cipher with the key JINX.

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

| S | A | Y | H | E | | L | L | O | T | O | | M | Y | F | R | I | | E | N | D | S | O | | F | V | A | R | Y | | I | N | G | S | I | | Z | E | S |

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8. (140.00 pts) Using a key of **DEFT** encode the string **KINGZONEDRAGON** using the Hill Cipher with a 26-character alphabet.

$$\begin{pmatrix} D & E \\ F & T \end{pmatrix} = \begin{pmatrix} 3 & 4 \\ 5 & 19 \end{pmatrix}$$

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

| K | I | N | G | Z | O | N | E | D | R | A | G | O | N |

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9. (250.00 pts) Decode the following aristocrat which is a quote from Aurelion Sol.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	0	10	1	0	0	0	5	1	0	3	0	5	1	10	0	1	7	5	5	8	0	5	3	3	5	0	4
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

| P | | Z | S | V | N | | B | X | N | | G | B | S | U | G | | B | R | | P | Q | Q | J | Z | P | L | S | B | N | | B | X | N | | W | N | U | W | N | B | J | S | Q |

| L | R | B | X | P | L | O | , | | S | L | V | | Z | R | U | B | S | Q | G | | J | G | N | | B | X | N | Z | | H | R | U | | U | N | Q | S | B | P | R | L | G | X | P | W |

| S | V | C | P | M | N |

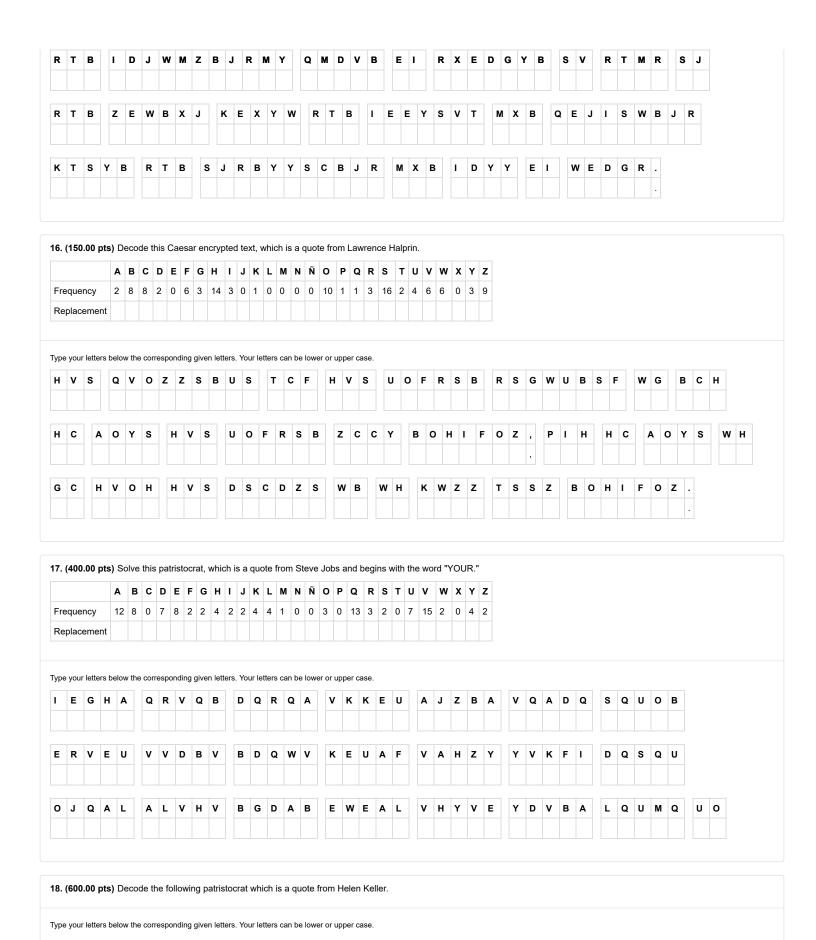**10. (400.00 pts)** The following symbols encodes a phrase by Dio Brando using a Baconian cipher. What does it say?
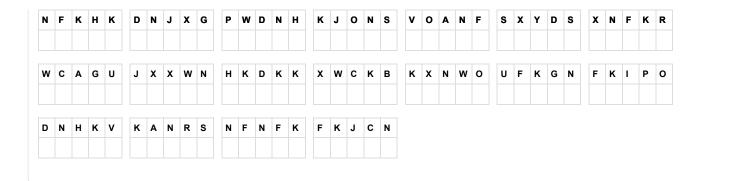
Please type the decrypted message below.

ABBBAABBAABBBABBBBABBBABBABBBAABBBABABBBABBBABBBBB

BABABBABABBBBBBBBBBABAABAABBAAABBABBBABABABBBBAABB

BBBAABABBBBAABBBBAABABBABBBAAABBABBBBAAABABBBBBBAA

BBAABBBABBBABBBBAABBBBBBBBAABBBBBABBBBAABBBBBBABBBAB

BABBBABBAABBABBABBBABABBBABBABABBBAABBBBBABBABBABBB

BAABABAABB

11. (350.00 pts) Decode the following aristocrat which is a quote from Ryan Reynolds.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	0	6	2	0	6	1	9	2	0	2	2	2	8	8	0	3	0	1	1	10	10	6	4	1	0	1	6
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

B	'	J		G	S	M		S	G	Z		S	Q		M	U	S	N	Z		T	V	M	S	E	N		O	U	S		E	S	J	T	G	M	B	V	B	F	Z	N
	,																																										

U	B	N		M	E	B	T	W	N		O	S	E	R	B	G	C		S	Y	M		T	G	L		K	E	T	C	N		M	U	T	M		U	Z		V	T	G

K	Z	G	V	U		H	E	Z	N	N		T		H	T	G	L	T		G	S	O

12. (160.00 pts) Using a decryption key of FLOP, decode the string CIZHJBGQBIJEJP using the Hill Cipher with a 26 character alphabet.

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

C	I	Z	H	J	B	G	Q	B	I	J	E	J	P

13. (250.00 pts) Solve this quote from Heimerdinger encrypted with a Morbit cipher given that 2=×•, 3=—, 8=×–, 9=–•, 5=•×

1 4 4 2 5 4 5 2 3 2 5 7 4 2 9 5 2 3 5 4 1 1 2 1 2 3

2 9 2 8 5 9 9 2 4 5 2 5 9 6 1 4 4 2 2 5 7 5 2 3 5

7 4 2 1 9 2 4

14. (350.00 pts) Decode the following aristocrat which is a quote from Byakuya Ishigami.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	4	4	3	2	7	0	5	1	0	3	6	3	0	9	0	0	0	3	4	6	6	0	0	4	3	1	0
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

N	D		J	E	W		K	C	G		B	G	C	N	E	W	B	,		J	E	W		T	K	S		K	T	T	E	H	X	Q	N	B	R
																		,																			

K	S	J	A	R	N	S	L		A	R	C	E	W	L	R		Y	N	Q	N	L	G	S	A		K	X	X	Q	N	T	K	A	N	E	S		E	D

B	T	N	G	S	T	G	.
							.

15. (300.00 pts) Decode the following aristocrat which is a quote from Bertrand Russell.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	0	14	1	5	9	0	2	0	6	8	2	0	6	0	0	0	0	2	12	7	7	0	3	5	5	9	2
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

| | R | T | B | | I | D | J | W | M | Z | B | J | R | M | Y | | Q | M | D | V | B | | E | I | | R | X | E | D | G | Y | B | | S | V | | R | T | M | R | | S | J |

| R | T | B | | Z | E | W | B | X | J | | K | E | X | Y | W | | R | T | B | | I | E | E | Y | S | V | T | | M | X | B | | Q | E | J | I | S | W | B | J | R |

| K | T | S | Y | B | | R | T | B | | S | J | R | B | Y | Y | S | C | B | J | R | | M | X | B | | I | D | Y | Y | | E | I | | W | E | D | G | R | . |

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16. (150.00 pts) Decode this Caesar encrypted text, which is a quote from Lawrence Halprin.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	2	8	8	2	0	6	3	14	3	0	1	0	0	0	0	10	1	1	3	16	2	4	6	6	0	3	9
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

| H | V | S | | Q | V | O | Z | Z | S | B | U | S | | T | C | F | | H | V | S | | U | O | F | R | S | B | | R | S | G | W | U | B | S | F | | W | G | | B | C | H |

| H | C | | A | O | Y | S | | H | V | S | | U | O | F | R | S | B | | Z | C | C | Y | | B | O | H | I | F | O | Z | , | | P | I | H | | H | C | | A | O | Y | S | | W | H |

| G | C | | H | V | O | H | | H | V | S | | D | S | C | D | Z | S | | W | B | | W | H | | K | W | Z | Z | | T | S | S | Z | | B | O | H | I | F | O | Z | . |

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17. (400.00 pts) Solve this patristocrat, which is a quote from Steve Jobs and begins with the word "YOUR."

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	12	8	0	7	8	2	2	4	2	2	4	4	1	0	0	3	0	13	3	2	0	7	15	2	0	4	2
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

| I | E | G | H | A | | Q | R | V | Q | B | | D | Q | R | Q | A | | V | K | K | E | U | | A | J | Z | B | A | | V | Q | A | D | Q | | S | Q | U | O | B |

| E | R | V | E | U | | V | V | D | B | V | | B | D | Q | W | V | | K | E | U | A | F | | V | A | H | Z | Y | | Y | V | K | F | I | | D | Q | S | Q | U |

| O | J | Q | A | L | | A | L | V | H | V | | B | G | D | A | B | | E | W | E | A | L | | V | H | Y | V | | Y | D | V | B | A | | L | Q | U | M | Q | | U | O |

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18. (600.00 pts) Decode the following patristocrat which is a quote from Helen Keller.

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

N F K H K	D N J X G	P W D N H	K J O N S	V O A N F	S X Y D S	X N F K R

W C A G U	J X X W N	H K D K K	X W C K B	K X N W O	U F K G N	F K I P O

D N H K V	K A N R S	N F N F K	F K J C N

19. (400.00 pts) Decode this Baconian-encrypted message, which is a quote from Mark Twain. The last word is EAT.

Type the decrypted message below.

RINGS EARTH GENES STRAY ORBIT ATTIC WAVES WORLD GAMMA

POWER FACTS OMEGA LASER RUSTY CAVES SOUTH HOLES QUEUE

DOYLE KILOS JUICE KLUTZ YAHOO ANGRY URBAN ANNIE WALTZ

SCRAM A BEAT ELVIS OPRAH HONEY BACON FANCY WORLD

AMIGO HOURS BEATS SIXTH MARIO QUACK ALBUM WALDO OUNCE

IRONY HUMAN SERUM MESSY REALM

20. (500.00 pts) Solve this patristocrat, which is about Taiju Oki and contains the word "BILLION."

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
Frequency	1	11	10	0	10	0	2	0	6	3	3	7	4	2	0	4	0	12	1	8	4	14	4	0	0	6	2
Replacement																											

Type your letters below the corresponding given letters. Your letters can be lower or upper case.

C Y B L E	U Q R C M	M C S Q A	U I J U Q	E J U I E	B C Q E V	B E T S O

C	Y	B	L	E		U	Q	R	C	M		M	C	S	Q	A		U	I	J	U	Q		E	J	U	I	E		B	C	Q	E	V		B	E	T	S	O

Y	U	I	U	B		M	C	N	U	E		V	U	I	U	C		L	Q	S	Y	B		T	B	K	O	T		Y	V	S	Y	B		L	C	Q	E	U

Q	E	S	Q	J		S	Q	G	U	L		L	C	Q	K	Y		S	O	M	Z	K		C	N	U	C	Q		B	G	E	U	I		B	E	V	S	O

L	B	Q	Z	T		U	B	I	L

Congratulations on finishing the BEAR SO Codebusters Test! You can take a deep breath and relax now! I hope everyone does well in their other events!