

# BVN Scioly Captain's Tryouts - Code Busters

## Scoring

Question Score / 2750 \_\_\_\_\_

Time for Timed Question \_\_\_\_\_

Timing Bonus \_\_\_\_\_

Final Score \_\_\_\_\_

## Team Info

Participants \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

School \_\_\_\_\_

# Resources

## Alphabet

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  
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

## Frequency of English Letters

E 12.51% S 6.54% C 3.06% G 1.96% K 0.67%  
T 9.25% R 6.12% U 2.71% W 1.92% X 0.19%  
A 8.04% H 5.49% M 2.53% Y 1.73% J 0.16%  
O 7.60% L 4.14% F 2.30% B 1.54% Q 0.11%  
I 7.26% D 3.99% P 2.00% V 0.99% Z 0.09%  
N 7.09%

## Frequency of Spanish Letters

E 14.08% I 5.98% M 3.08% Y 1.09% Z 0.47%  
A 12.16% L 5.24% P 2.89% V 1.05% Ñ 0.17%  
O 9.20% D 4.67% B 1.49% G 1.00% X 0.14%  
S 7.20% T 4.60% H 1.18% F 0.69% K 0.11%  
N 6.83% U 4.69% Q 1.11% J 0.52% W 0.04%  
R 6.41% C 3.87%

## Vigenère Square

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

[Timed Question] [150 points] Solve the following Aristocrat where the last word is EXCUSE.

R	A	L	L	F	R	M	C	L	I	K	H	N	C	G	G	I	N	N	L	T	

L	D	R	N	R	E	I	Z	I	F	J	A	Z	I	T	F	L	T	T	Y

A	E	H	I	P	G	C	N	I

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
3	0	3	1	2	3	3	2	7	1	1	6	1	5	0	1	0	4	0	4	0	0	0	0	1	2

1) [200 points] Solve the following Aristocrat which is a quote from Aristotle.

L	N	W	F	W

R	U

J	Q	M	K

J	Q	W

X	I	K

L	J

I	A	J	R	H

Z	F	R	L	R	Z	R	U	P

H	J

Q	J	L	N	R	Q	E

U	I	K

Q	J	L	N	R	Q	E

I	Q	H

S	W

Q	J	L	N	R	Q	E

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	0	0	0	3	2	0	3	4	8	3	6	1	4	0	1	9	8	1	0	3	0	4	1	0	2

2) [250 points] Solve the following Aristocrat which is in Spanish.

T	F	E	S

P	I

T	F	E	S

D	P	Ã'	S	I

P	I

Ã'	T	V	T

A	B	C	D	E	F	G	H	I	J	K	L	M	N	Ã'	O	P	Q	R	S	T	U	V	W	X	Y	Z
0	0	0	1	2	2	0	0	3	0	0	0	0	0	2	0	3	0	0	3	4	0	1	0	0	0	0

3) [300 points] Solve the following pastiocrat where the last word is PROGRESS.

G	C	V	S	N

G	N	A	G	O

P	R	Y	C	G

O	B	V	A	H

F	O	P	O	G

L	P	O	T	V

P	F	G	N	O

Y	B	B	N	V

K	G	J	I	O

R	I	C	B	B

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
2	5	3	0	0	2	7	1	2	1	1	1	0	4	7	4	0	2	1	1	0	4	0	0	2	0

4) [350 points] Decrypt the following text which has been encoded using the Vigenere cipher with a key of RISE.

W	I	D	P	J

M	N	I	E	B

A	Q	V	A	S

R	U	A	L	E

E	L	M	T	V

Q	Y	L	K

5) [200 points] Solve the following pastiocrat.

F	M	M	L	F

M	P	M	E	E

D	K	L	K	U

Y	P	M	E	L

R

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
0	0	0	1	3	2	0	0	0	0	2	3	5	0	0	2	0	1	0	0	1	0	0	0	1	0



6) [250 points] Solve the following pastiocrat where the first word is WINNING.

C	S	B	B	S

B	E	S	K	B

O	H	Q	H	T

J	O	Z	S	B

E	W	L	O	C

A	B	O	S	B

E	O	M	C	S

B	S	K

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	8	3	0	3	0	0	2	0	1	2	1	1	0	5	0	1	0	7	1	0	0	1	0	0	1

7) [300 points] Encrypt the following text using the vigenere cipher with the key SITH.

H	A	V	E	Y

O	U	E	V	E

R	H	E	A	R

D	T	H	E	T

R	A	G	E	D

Y	O	F	D	A

R	T	H	P	L

A	G	E	I	U

S	T	H	E	W

I	S	E

8) [150 points] Solve the following Aristocrat where the last word is MILE.

M	L	U	K	U

J	K	U

X	Z

M	K	J	D	D	S	N

Q	J	R	P

J	B	Z	X	E

M	L	U

U	I	M	K	J

R	S	B	U

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
0	2	0	2	1	0	0	0	1	5	4	2	4	1	0	1	1	2	2	0	6	0	0	2	0	2

9) [150 points] Decrypt the following text which has been encoded using the Affine cipher with  $a = 2$  and  $b = 4$

Q	E	Y	M	E

O	M	E	Q	A

G	S	E	Q	O

Y	A	W	E	A

Y	M	M

10) [200 points] Decrypt the following text from Gallic Wars which has been encoded using the Caesar cipher.

G	R	R	U	L

M	G	A	R	O

Y	J	O	B	O

J	K	J	O	T

Z	U	Z	N	X

K	K	V	G	X

Z	Y

11) [250 points] Solve the following Aristocrat where the first word is TOO.

D	W	W

M	U	C	J

W	B

G	A

U	L	R

C	W	D

Q	E	S	E	C	Z

W	G	L

K	L	R	U	M	A

V	R	T	U	G	A	R

P	R

U	L	R

Q	E	S	E	C	Z

W	G	L

B	R	U	L	A

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	2	4	2	4	0	4	0	0	1	1	6	2	0	0	1	2	7	2	1	6	1	6	0	0	2