

# Science Olympiad — Just Xenocrypts

## Exam Preparation

You will need:

1. Folders for each of the teams to hold the tests
2. Sufficient copies of the test for all teams. They don't need to be stapled.
3. Multiple timers which have a lap function on them - ideally one per volunteer. The timer app on an iPhone or Android Phone that has a stopwatch function with lap function is sufficient.

Before the event begins:

1. Practice starting the timers and using the lap function to record the times. Make sure volunteers understand how to use the lap function and are not accidentally stopping the timer completely.
2. Memorize the answer to the timed question.
3. Check to make sure that this key matches the test you are proctoring.
4. Place one copy of the test for each team in the provided folders with the first page outside the folder.
5. Adjust desks and chairs – teams may have up to 3 students for this event.

## Running the Event

1. When the students enter the room, instruct them to sit down, DO NOT OPEN THE FOLDER, and put their names, school name and school number on the first page.
2. Encourage them to write their team number on all the other pages AFTER they begin the test. This way if their papers gets separated from each other we can make sure to give them credit.
3. **CRITICAL:** Check to see that students have ONLY brought
  - i. Something to write with (pencils, pens, erasers)
  - ii. Five function calculators (addition, subtraction, multiplication, division, and usually square root). The calculator can have a simple memory store/recall function but must not have a modulus or other scientific and programmable functions. If their calculator doesn't meet these requirements, they may not use it.
  - iii. If there are spare calculators in the kit, you may loan up to one per team to use for the test.
  - iv. If the student has a smart watch (Apple watch, Samsung Gear, etc.) they will need to put it away.
4. Instruct the students that if they answer the timed question within 10 minutes, they can be awarded a bonus if they solve the timed question with no more than 2 letters incorrect.
  - i. When they have a solution for the cryptogram they should raise their hand.

- ii. Let them know that you will announce when the 10-minute time is up. After the first 10 minutes, no additional bonus points will be awarded.
  - iii. When you see a team raise their hand, hit the LAP function and head to the team.
  - iv. Determine if their answer is correct (see next page for grading), If so, write the time on their score sheet.
  - v. If their score is incorrect (more than 2 letters incorrect), tell the team that the answer is wrong, but DO NOT tell them what is wrong. They can continue to work on the question and raise their hand again to be checked. A team has an unlimited number of attempts during the 10-minute bonus.
5. Tell the teams that they do not have to fill in the frequency table. It is simply there as an aid to them solving the cryptogram. It will not be graded.
  6. Some students may never have used a non-scientific calculator. You should have them enter a simple formula on their calculator:  $1 / 26 = * 26 = ..$  Most will be surprised to see that the answer is not rounded to 1 as they expected but .9999999999
  7. When the timers hit the 10-minute point, announce that no bonus points will be awarded and put away the timers. The students may continue to work on the question, but they may not receive any extra points.
  8. A team is not restricted to only the timed question during the 10 minutes. They can move on or split up the work if they would like, but it is in their best interest to try for the bonus.
  9. When time is up, have the students put writing instruments down and put their answer pages back into the folder in the correct order.

## How to grade

1. Teams can have up to two incorrect letters total on their cryptogram and still be correct. The frequency of the incorrect letter is irrelevant. See the example below.

If the cryptogram was as shown:

**KZBAOF KFXMFXYP**  
**SAMPLE SENTENCE**

and the students answered (underlined letters indicate mistakes)

**SAMPLE SFNTFNCF**

then it counts as four mistakes (even though the mistake was only in the letter E) and the answer DOES NOT count. However, if they put

**SAMPUL SENTENCE**

It is considered correct with two letter mistakes.

2. For questions which have a numeric answer (such as determining the a= and b= values), no mistakes are allowed.

3. Teams do NOT have to fill in the frequency table. It is simply there as an aid to them solving the cryptogram. It WILL NOT be graded. It is included in the answer key as an aid to the grader.
4. When scoring the Baconian ciphers (with strange text or symbols), they can write the answer under the Baconian symbols or on the line provided. Note that you will see lots of As and Bs, but they are not graded as the answer, only what they put on the answer line.
5. As you score each question, if correct, put the number of incorrect letters (0, 1, or 2) next to the question number on the scoring page. Also, put the value for the question into the score column. If they get more than 2 letters wrong, subtract 100 points from the score until it would be zero. If a question is worth 240 points and they get 4 letters wrong, you would start with 240 points (for up to 2 letters wrong) and then subtract 100 points for the next two letters wrong ending up with a final score of 40 points for that question. If they had gotten 5 or more letters wrong on a 240 point question, they would receive 0 points for that question. With a 650 point question, they could get 8 letters wrong and receive 50 points (2 free letters then  $6 \times 100 = 600$  points off). Just put the incorrect cost deduction on the score sheet and subtract it from the value for the question. Under no circumstance should the score for any question be less than zero. Note that while the timed question must have 2 or fewer letters incorrect in order to get the timing bonus, a team solving the timed question after the 10 minutes passed would be accepted as correct with 3 incorrect letters receiving 100 points for the timed question.
6. If they correctly answered the timed question in 10-minutes or less with 2 or fewer letters incorrect, you need to compute the bonus time. Take the value for the minute from this first table below

0:xx	2,160	1:xx	1,920	2:xx	1,680	3:xx	1,440	4:xx	1,200
5:xx	960	6:xx	720	7:xx	480	8:xx	240	9:xx	0

and then add the seconds value from this table:

X:00	240	X:01	236	X:02	232	X:03	228	X:04	224
X:06	216	X:07	212	X:08	208	X:09	204	X:10	200
X:12	192	X:13	188	X:14	184	X:15	180	X:16	176
X:18	168	X:19	164	X:20	160	X:21	156	X:22	152
X:24	144	X:25	140	X:26	136	X:27	132	X:28	128
X:30	120	X:31	116	X:32	112	X:33	108	X:34	104
X:36	96	X:37	92	X:38	88	X:39	84	X:40	80
X:42	72	X:43	68	X:44	64	X:45	60	X:46	56
X:48	48	X:49	44	X:50	40	X:51	36	X:52	32
X:54	24	X:55	20	X:56	16	X:57	12	X:58	8

For example if they solved the time question at the 6:46 mark, you would add 720 (from the 6:xx entry in the first table) to 56 (from the X:46 entry in the second table) to get a bonus of 776. If they had solved it in exactly 4:00 minutes, you would add 1200 and 240 to get a bonus of 1440.

7. Add up all the scores and put the total on the bottom of score sheet.

8. You must break all ties. Indicate the tie breaker by adding .1 to the score of the team ahead. With multiple teams tied, you will add more. I.e. if five teams all scored 200 points, the final scores that you would enter on the score sheet would be 200.4, 200.3, 200.2, 200.1 and 200.
9. To determine how to break the tie, you need to look at the correctly answered questions in the order from the table below. If both teams answered the same (i.e. they answered the question with zero mistakes) then you go on to the next question. If one team had no mistakes and the other team had one mistake, then the team with no mistakes is ahead. For example, if one team answered question #8 (which is the highest value question) and another team didn't, the first team will be ahead.

<b>Tie Breaker Order</b>	<b>Question #</b>
1	25
2	24
3	23
4	22
5	21
6	20
7	19
8	18
9	17
10	16
11	15
12	14
13	13
14	12
15	11
16	10
17	9
18	8
19	7
20	6
21	5
22	4
23	3
24	2
25	1
26	Timed

0. If there is still a tie (typically when you have teams which answered either zero, one or two questions) then you will need to look at the tie breaker questions again and count the number of correctly answered letters. The team with the most correctly matched letters is to be ahead.

Timed Question [0 points] What Spanish word means hello in English? When you have solved it, raise your hand so that the time can be recorded and the solution checked.

**UFRL**  
**HOLA**

	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
<b>Frequency</b>						1					1							1				1					
<b>Replacement</b>	N	Y	Q	T	F	O	J	Z	V	D	W	A	X	E	I	Ñ	R	P	L	C	M	H	S	K	U	G	B

Translation: *Hello*

1) [0 points] Solve this part of a famous poem by Neruda.

FGUIP UHSQÑDÑQ XPH CUQHPH WMH NQÑHNUH UHNM RPSAU.  
 PUEDO ESCRIBIR LOS VERSOS MAS TRISTES ESTA NOCHE.

UHSQÑDÑQ, FPQ UEUWFXP: "XM RPSAU UHNM UHNQUXXMIM, J  
 ESCRIBIR, POR EJEMPLO: "LA NOCHE ESTA ESTRELLADA, Y

NÑQÑNMR, MBGXUH, XPH MHNQPH, M XP XUEPH."  
 TIRITAN, AZULES, LOS ASTROS, A LO LEJOS."

	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	1	1	2	2	3	2	16	2	1			10	8	7		11	10	3	4		15		2	9		
Replacement	H	Z	V	B	J	P	U	S	D	Y	X	Ñ	A	T	I	Q	O	R	N	C	G	E	F	M	L	W	K

2) [0 points] Solve this quote by Picasso

KC UIBJUHCMUQI XVUBEX, JXYQ EUXIX AGX XIMQIEYCYEX  
 LA INSPIRACION EXISTE, PERO TIENE QUE ENCONTRARTE

EYCRDCIPQ.  
 TRABAJANDO.

	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	2	6	1	5		1		6	2	1		2				1	4	1			5	1		8	5	
Replacement	Q	S	A	J	T	V	U	Z	N	P	L	K	C	G	F	W	D	O	B	Ñ	Y	I	X	H	E	R	M

3) [0 points] Solve this quote by Spanish author Gabriel Garcia Marquez

YT DOGTBH CH FHB DOGTC TBTA, AGCH FHB DOGTC AHI  
TE QUIERO NO POR QUIEN ERES, SINO POR QUIEN SOY

QOÑCRH TAYHI QHCYGXH.  
CUANDO ESTOY CONTIGO.

	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	6	3		2	5	10	2						1	4		2	1		7				1	3	
Replacement	S	R	N	Q	V	P	I	O	Y	Ñ	J	X	B	K	A	U	W	C	D	L	E	Z	M	H	G	T	F

4) [0 points] Solve this part of another famous spanish poem

ÑMILTZE MQJ DEXJ KIJQÑJ OQ SMQTE ÑEFE OQ OQODE, NJDJ  
CULTIVO UNA ROSA BLANCA EN JUNIO COMO EN ENERO, PARA

OI JFTVE XTQÑODE, PMO FO HJ XM FJQE GDJQÑJ.  
EL AMIGO SINCERO, QUE ME DA SU MANO FRANCA.

	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				5	9	4	1	1	3	11	1	1	5	1	5	8	1	9		1	4		1		3		1
Replacement	Y	Z	K	R	O	M	F	D	L	A	B	T	U	P	C	E	Q	N	H	J	I	Ñ	G	X	S	W	V



5) [0 points] Solve this quote that I just made up

XVZ, ZV ICEKAWLAC CG KCGLE IC QCEF. NFQVE F SWDFA  
HOY, YO DESTRUIRE EN TENIS DE MESA. VAMOS A JUGAR

ELCKC TFAKLIVE, Z NVZ F DFGFA UFIF TFAKLIV.  
SIETE PARTIDOS, Y VOY A GANAR CADA PARTIDO.

	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	6		8	2	6	11	3		5		5	5		2				2		1	2	1	6	2	1		4
Replacement	R	Q	E	G	S	A	N	X	D	W	T	I	K	V	L	Ñ	B	M	Z	J	P	C	O	U	H	F	Y

6) [0 points] Solve this quote by Tokio from Money Heist

IMÑ PVI XUOR GO CHUB, OR YHOBKM Ñ VQPV. Ñ IU RM  
SOY MAS BIEN DE HUIR, EN CUERPO Y ALMA. Y SI NO

KHOGM QQOLVB PO YHOBKM, VQ PORMI NHO OIYVKO PU VQPV.  
PUEDO LLEVAR ME CUERPO, AL MENOS QUE ESCAPE MI ALMA.

	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	1				2	5	5		4	1	6	1	3	12	6	5	4			4	8		1	3	
Replacement	W	R	H	K	F	X	D	U	S	Z	P	V	O	Q	Y	E	M	L	N	J	Ñ	I	A	G	B	C	T

7) [0 points] Solve this other quote from Money Heist by El Profesor

ZD NEO DOTDSEÑK DO FE UCÑE E ÑCHDPDOMCEP ÑD YIDOKT V  
TE HAN ENSEÑADO EN LA VIDA A DIFERENCIAR DE BUENOS Y

XEFKT. TC DTZK FK NEMDO KZPET WDPTKOET, OK WETEPCE  
MALOS. SI ESTO LO HACEN OTRAS PERSONAS, NO PASARIA

OEÑE.  
NADA.

	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			5	11	15	3		1	1		8		2	2	5	9	5			1	9	1	1	2	1	1	3
Replacement	W	X	I	E	A	L	Q	F	U	K	O	G	C	H	D	N	R	J	Z	Ñ	S	V	Y	P	M	B	T

8) [0 points] Solve this last quote by Moscu from Money Heist

ZCUCZ UER DIKEIPCZ, BCUC WYQCMIZ KEI QXIMIM KEI XW  
SOMOS MUY PEQUEÑOS, COMO RATONES QUE TIENEN QUE IR

DCW HY NXOY GYBXIMOC YAELIWCZ, DCWKEI MC QIMIUCZ MX  
POR LA VIDA HACIENDO AGUJEROS, PORQUE NO TENEMOS NI

XOYI OI CQWY BCZY DYWY GYBIW.  
IDEA DE OTRA COSA PARA HACER.

	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	4	14	4	6		2	1	15		4	1	7	1		4	1	4	1			4		8	6	11	7
Replacement	G	C	O	P	U	Z	H	L	E	B	Q	J	N	V	W	D	Ñ	T	Y	X	F	M	K	R	I	A	S

9) [0 points] Here's a random quote from an article about cooking a certain dish for Christmas

YXGOQU THOBGLUB HO HK TKGFAKKU TCAOYATGK QH XOG YHOG  
CUANDO PENSAMOS EN EL PLATILLO PRINCIPAL DE UNA CENA

OGÑAQHDG, HK TGÑU ÑAHOH QH SUCLG AOHÑAFGEKH G  
NAVIDEÑA, EL PAVO VIENE DE FORMA INEVITABLE A

OXHBFCG LHOFH.  
NUESTRA MENTE.

	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	7	3	3	1	1	4	13	15			7	3			4	11		4		1	5	5			3	3	
Replacement	I	S	R	Ñ	B	T	A	E	Q	Z	L	M	K	G	V	N	H	D	W	F	P	O	X	J	U	C	Y

10) [0 points] Here's a quote from Noticias Telemundo from 12/24/2020

BY MABNC RP DAWJWEWRCAPV RP ZW VWZBR, APVKWDFVDWV, H  
UN GRUPO DE TRABAJADORES DE LA SALUD, RESCATISTAS, Y

JCTJPACV VCANAPYRFPACY WZ NAFYKFNWZ PLNPADC PY  
BOMBEROS SORPRENDIERON AL PRINCIPAL EXPERTO EN

PYXPATPRWRPV FYXPKKFCVWV RPZ NWFV PY VB KBTNZPWOCV.  
ENFERMEDADES INFECCIOSAS DEL PAIS EN SU CUMPLEAÑOS.

	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	11	5	9	4	1	7		1		3	5	1	1	7		1	18		8		3		13	13	2	8	6
Replacement	R	U	O	T	J	I	Z	Y	V	B	C	X	G	P	Q	Ñ	E	K	D	W	M	H	S	A	F	N	L

11) [0 points] Solve this translated quote by Albert Einstein

HW ÑWCFIWD NFDWKTFN HVFDUNWD ÑNWLKFIYD RWH FK IBDIW  
NO PODEMOS RESOLVER NUESTROS PROBLEMAS CON EL MISMO

ÑFHDIYIBFHUW GVF VDIYIWD RVYHCW KWD RNFYIWD  
PENSAMIENTO QUE USAMOS CUANDO LOS CREAMOS

	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
<b>Frequency</b>		2	2	11		10	1	6	7		4	1		5	3			3		1	2	4	13		5		
<b>Replacement</b>	W	I	D	S	K	E	Q	N	M	F	L	B	X	R	P	Ñ	Z	G	C	H	V	T	U	O	Y	A	J

12) [0 points] Solve this other translated quote by albert einstein

XJM CSHVEJM BXS JXJQM QEGSZUE XJ SHHEH JXJQM UJZSJZE  
UNA PERSONA QUE NUNCA COMETIO UN ERROR NUNCA INTENTO

JMTM JXSOE.  
NADA NUEVO.

	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
<b>Frequency</b>		1	1		6		1	4		11			6			1		3		6	1	2	1		6		3
<b>Replacement</b>	Ñ	Q	P	J	O	L	M	R	F	N	B	Z	A	W	G	V	X	C	H	E	D	I	S	Y	U	K	T

13) [0 points] Solve this quote by Salvador Dali

VXCKU QTRGVIFK RKXTX HPV ÑV GIXAGOTI RKI PIT  
ESTOY HACIENDO COSAS QUE ME INSPIRAN CON UNA

AOKYPIFT VÑKRGKI U VXCKU COTCTIFK FV AGICTO RKI  
PROFUNDA EMOCION Y ESTOY TRATANDO DE PINTAR CON

QKIVXCGFTF.  
HONESTIDAD.

	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	3		6			6	6	1	11		11				2	4	3	2	5		9	3	8		6	1	
Replacement	P	K	T	L	V	D	I	Q	N	X	O	B	G	Z	M	R	U	H	C	W	A	Y	E	Ñ	S	F	J

14) [0 points] Solve this weird quote by Salvador Dali

XI MXBFMXÑI NID ZKM TKUXÑI NFÑI QUXEIVBU U QU  
NO ENTIENDO POR QUE CUANDO PIDO LANGOSTA A LA

NUDDFQQU MX KX DMVBUKDUXBM XKXTU JM VFDAMX KX  
PARRILLA EN UN RESTAURANTE NUNCA ME SIRVEN UN

BMQMPIXI TITFXUÑI.  
TELEFONO COCINADO.

	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	5		6	1	5			10	1	6		10	3	4		1	5			4	11	3		14		1
Replacement	V	T	Ñ	R	G	I	H	W	O	M	U	J	E	P	D	Y	F	L	B	X	C	A	S	K	N	Z	Q

15) [0 points] Last quote by salvador Dali, I swear. (this one is short, so try your best.)

GDKNP MRLR LCPDP NG SÑD LDÑNPD ZN CÑXNÑBDP.  
SABER COMO MIRAR ES UNA MANERA DE INVENTAR.

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

16) [0 points] Solve this quote by the author of Don Quixote

QHW NHÑU ÑH ZULH UL UÑ XPWJXP TVU ÑH QHLGAH UL UÑ  
MAS VALE LA PENA EN EL ROSTRO QUE LA MANCHA EN EL

GPXHBPL.  
CORAZON.

	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
<b>Frequency</b>	1	1					2	8		1		5		1	5		4	2			1	7	1	2	3		1
<b>Replacement</b>	H	Z	B	W	K	Ñ	C	A	D	T	G	N	X	V	L	I	O	M	Y	J	Q	E	U	S	R	F	P

17) [0 points] Solve this other quote by Cervantes

ZLPMÑ IKMU L WKYLUJF MF MPZLN LOCL MU MY ELÑ.  
HACER BIEN A VILLANOS ES ECHAR AGUA EN EL MAR.

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

18) [0 points] Solve this quote.

JV XJQNFNQIK QJ CWJGK OJV BNJEIH; JV HXINFNQIK  
EL PESIMISTA SE QUEJA DEL VIENTO; EL OPTIMISTA

JQXJZK CWJ MKFRNJ; JV ZJKVNQIK KGWQIK VKQ BJVKQ.  
ESPERA QUE CAMBIE; EL REALISTA AJUSTA LAS VELAS.

	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	2		1	3	2	2	6	14	11		1	7		1		9	1				7	3	3		2
Replacement	Z	V	Q	K	N	M	J	O	T	E	A	F	C	I	Y	D	W	S	B	H	Ñ	G	L	U	P	X	R

19) [0 points] Solve this translated quote by anais nin.

JOYNGDGAHO ÑMNM OMDHNJMN ZM BGIM IHO BJYJO, JW JZ  
ESCRIBIMOS PARA SABOREAR LA VIDA DOS VECES, EN EL

AHAJWEH S JW NJENHOÑJYEGBM.  
MOMENTO Y EN RETROSPECTIVA.

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

20) [0 points] Solve this translated quote by Confucius.

KF MAFJNPHUE MQA ZNF OQKMAQ UAAQR D VIQAFE? OQKMAQ  
ME PREGUNTAS POR QUE COMPRO ARROZ Y FLORES? COMPRO

UAAQR MUAU LÑLÑA D VIQAFE MUAU HFPFA UIJQ MQA IQ ZNF  
ARROZ PARA VIVIR Y FLORES PARA TENER ALGO POR LO QUE

LÑLÑA.  
VIVIR.

	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
<b>Frequency</b>	16			2	3	8		2	4	2	3	4	7	3	4	2	2	12	2			8	2				2
<b>Replacement</b>	R	D	W	Y	S	E	Ñ	T	L	G	M	V	P	U	I	C	N	O	Z	H	K	A	F	B	J	X	Q



21) [0 points] Solve this quote from the Lion King

VF ZWJIW IW FHFUF GSU VS NCW WUWB, R SIUSB IW  
LA GENTE TE AMARA POR LO QUE ERES, Y OTROS TE

SEKFUFJ GSU VF HKBHF UFPSJ. FXSBICHTUFIW F WBS.  
ODIARAN POR LA MISMA RAZON. ACOSTUMBRATE A ESO.

	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		5	2		1	12	2	4	6	3	2			1			1		1	9	1	8	3	9	1		1
Replacement	X	S	U	Ñ	D	A	P	M	T	N	I	V	H	Q	F	W	Z	J	Y	O	B	R	L	E	C	K	G

22) [0 points] Solve this quote by Walt Disney in Spanish

MÑ KTVSLUR BUSU KVRJUMRUS, KTVSLV BUSU RÑXUS. BÑSETV  
NO DUERMAS PARA DESCANSAR, DUERME PARA SOÑAR. PORQUE

PÑR RTVXÑR VRCUM BUSU JTLBPDSRV.  
LOS SUEÑOS ESTAN PARA CUMPLIRSE.

	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		5	1	1	1					2	3	3	3		5		2		9	9	5	11	8		2		
Replacement	J	P	T	I	Q	W	K	B	Z	C	D	M	N	F	O	V	L	X	S	R	U	A	E	H	Ñ	G	Y

23) [0 points] Solve this quote about ignorance

WDÑDC CDIDC IRQ LOYDFNYWVC. TD MRV DBRFFV VC MRV YD  
TODOS SOMOS MUY IGNORANTES. LO QUE OCURRE ES QUE NO

WDÑDC LOYDFNIDC TNC ILCINC BDCNC.  
TODOS IGNORAMOS LAS MISMAS COSAS.

	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
<b>Frequency</b>		2	12	13		4			5			3	2	5	2	2		1	4		2		5	3		4	
<b>Replacement</b>	P	C	S	O	F	R	B	Z	M	X	Ñ	I	Q	A	D	G	K	Y	U	J	L	V	E	T	W	N	H

24) [0 points] Solve this quote about happiness

DN LBJYPBN AHDJENRJAS OP UAOA VPB MFYN SA PV VPB  
LA PRIMERA OBLIGACION DE TODO SER HUMANO ES SER

IPDJG, DN VPEFSON MNRPB IPDJG N DAV OPY NV.  
FELIZ, LA SEGUNDA HACER FELIZ A LOS DEMAS.

	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
<b>Frequency</b>	6	5		6	2	2	2	1	2	5		1	2	9		4	10		2	3		1	6			3	
<b>Replacement</b>	O	R	K	L	G	U	Z	B	F	I	Y	P	H	A	J	D	E	V	C	N	Ñ	T	S	Q	W	M	X

25) [0 points] Solve this translated quote by Confucius

L RZÑRM CEQMSL CEM GLDLT, GM JZÑ IZRZ IE JZSLNZÑ  
 A DONDE QUIERA QUE VAYAS, VE CON TODO TU CORAZON

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