

Answers:

1. If you thought this one was easy just wait for the rest
2. Dad ate bad beef.
3. Congratulations on getting this simple shift cipher solved
4. The last letter of each word
5. This is one of the most basic transposition ciphers
6. Make sure you play fair now
7. Hello world!
8. "The only thing worse than being blind is having sight but no vision." - Helen Keller
9. Sometimes an extra letter is all you need OR "For want of a nail, the home was lost; for want of a shoe, the horse was lost; for want of a horse, the battle was lost; for want of the battle, the war was lost."
10. The vigenere cipher was once known as the unbreakable cipher.
11. "You can fool some of the people all of the time, and all of the people some of the time, but you can not fool all of the people all of the time." - Abraham Lincoln
12. It is a good thing that you remember your keyboard layout!
13. Gabe defaced a ceded cabbage
14. Fortune favors the brave.
15. Yum, great apple pi!

Solutions:

1. Take the sentence, without spaces, and reverse it. Adding spaces based on context gives you the sentence: "If you thought this was easy just wait for the rest"
2. Converting each decimal number except the '8' into hexadecimal yields "DAD - 8 - BAD - BEEF", which when read aloud is "Dad ate bad beef"
3. Shifting each letter in the ciphertext up one place in the alphabet (B to A, C to B, etc.) yields the plaintext: "Congratulations on getting this simple shift cipher solved."
4. Taking the last letter of each word results in "thelastletterofeachword". After adding spaces, this becomes "The last letter of each word"
5. Take each group of letters and rearrange them as done below:

tohbrscs
hneaaiix
iemsntpx
sooisihx
ifscpoex
stttonrx

Then write down the letters in each column from left to right, revealing: "thisisoneofthemostbasictranspositionciphersxxxxx". Remove the x's and add spaces to get: "This is one of the most basic transposition ciphers".

6. For each two-letter group in the ciphertext, find each letter in the table to the left. Then find and write down the letter located in the same row as the first letter and same column as the second letter. Then find and write down the letter located in the same row as the second letter and the same column as the first letter. If both letters share a row, just shift each letter to the right and write those two letters down, and if both letters share a column shift each letter up and write those down. In the case of a double-letter, shift the letters up and to the left and right and write them both down. After doing this for each pair of letters the text becomes: "ma ke su re yo up la yf air n ow". Removing the spaces and adding them back based on context returns the plaintext: "Make sure you play fair now."

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

7. Using each one and zero as a white or black pixel, respectively, in a 25×13 pixel image, filling out the rows first, creates the image below:



The final plaintext is "Hello World!".

8. The ciphertext is encrypted in Braille, and converting back to standard letters reveals the quote: "The only thing worse than being blind is having sight but no vision." - Helen Keller
9. The ciphertext is composed of two parts, a famous quote and the decrypted plaintext. Each letter in the plaintext is inserted into each word of the quote: "For want of a nail, the shoe was lost; for want of a shoe, the horse was lost; for want of a horse, the battle was lost; for want of the battle, the war is lost." The extra letters added for the text: "Sometimes an extra letter is all you need." Either is acceptable.
10. Take the key phrase "emosewasinotpmurcrelyt" and repeat it as necessary in order to create a key with the same number of letters as the ciphertext, as below:

Key	emo sewasino tpmurc rely tem osewa si not pmurcrelyte mosewa
Cipher	xts nmcefmes vsbbvt ned mggq yfssn sa gvz jzvigrolzei owhlar.

Then for each key-ciphertext letter pair, use the key letter as the row in the table below and find the column that contains the ciphertext letter in that row. The plaintext letter for that pair is the letter at the top of that column.

	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

After decrypting each letter in the ciphertext, the plaintext is formed: "The vigenere cipher was once known as the unbreakable cipher."

11. The keyphrase for this substitution cipher is "A QUICK BROWN FOX JUMPS OVER THE LAZY DOG". Removing double letters renders the key: "AQUICKBROWNFJMPXSVETHLZYDG". To find the original plaintext, locate each letter in the ciphertext in the second row, and write down the plaintext letter in the first row of the same column. This yields the quote: "You can fool some of the people all of the time, and all of the people some of the time, but you can not fool all of the people all of the time." - Abraham Lincoln
12. To solve this cipher, take each letter in the ciphertext and shift it to the left one place as if it were on a QWERTY computer or typewriter keyboard. If needed, wrap around to the right; i.e., Q becomes P, A becomes L, and Z becomes M. The decrypted cipher is: "It is a good thing that you remember your keyboard layout!"
13. Each measure in the melody shown contains 8 eight-note segments which each represent one letter. Each segment may have multiple notes, but each if the same

note but in a different octave. Writing down the letter names of each eight-note segment reveals the text: “Gave defaced a ceded cabbage.”

14. This image was formed by taking an original image and removing every other row of pixels and replacing it at the bottom of the image. To return to the original image, reverse the process—take each row of pixels in the bottom half of the image and insert them between each row of pixels in the top half of the image. The original image is shown below:



Thus, the plaintext is: “Fortune favors the brave.”

15. The key for this shift cipher is the first few digits of π . Shift each letter of the ciphertext up by the number of places of the corresponding digit. For example, shift the B up three places, the V up one place, the Q up four places, etc. The original plaintext is: “Yum, great apple pi!”