

DragonCon Crypto Challenge 2015 - Solutions

1. The _____ to Disney World will _____ young kids

Solution: entrance



























Entrance is a heteronym. A heteronym is a word that is written identically but has a different pronunciation and meaning.

2. 60 72 40 24 70 70 42

Solution: braille

60	72	40	24	70	70	42
*	*	*	*	*	*	*
*	*		*	*	*	*
	*			*	*	

In braille it spells the word Braille

												
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. 00852 01336 00697 01477 00770
01336 00697 01477 00852 01209
00770 01209 00770 01477 00770
01477 00697 01477

Solution: Telephone

The numbers are the frequencies used to create DTMF that phones use. Each digit on a phone plays two tones that is made two frequencies played at once, Dual Tone Multi Frequency (DTMF). Taking the numbers in group of two, each pair equates to a digit on the phone. Each digit has 3 letters on the button. The word "Telephone" is spelled using the letters of the digits.

Letter	Digit	DTMF Frequency
T	8	852 1336
E	3	697 1477
L	5	770 1336
E	3	697 1477
P	7	852 1209
H	4	770 1209
O	6	770 1477
N	6	770 1477
E	3	697 1477

4. Last name of the person: LMOET OAATR ASA00 IDCNT CLRKO OA

Plain Text: Look I am a doctor not an escalator

Solution: McCoy

Rail Cipher, Key is 4 (<http://practicalcryptography.com/ciphers/rail-fence-cipher/>)

The URL will also allow you to decrypt/encrypt

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1L   m   o   e   t
2 o a a t r a s a o
3 o l d c n t c l r
4 k   o   o   a

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5. Who is the poem about?

ycgc l qd ragx zfx d sqiupgc fm mgyn rhwhcf lq zrtmn hgu ef plgs fm db
dbeli ylqk d mfoi plgs kq mzuu fm oarbf epu g sqcng dbg prmi ydaf
hgulnc rlqk d oadxb ghn ylhncg bobf

Solution: Mother

Playfair Cipher (<http://practicalcryptography.com/ciphers/playfair-cipher/>)

The URL will also allow you to decrypt/encrypt

Keyword: Dragoncon

Keysquare:

```

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

```

Keysquare for url: DRAGONCBEFHIKLMQPSTUVWXYZ

6. First word of the title.

28197 72589 24421 56616 44188
89647 61572 82175 52835 23555
22338 96788 89222 24925 26513
44881 93862 88441 73286 91265

Solution: Guardians

Plain Text: Guardians of the galaxy

Baconian Cipher - modified (<http://practicalcryptography.com/ciphers/baconian-cipher/>)

Modifications:

1 based instead of 0 based.

a – even number digit

b – odd number digits

7. Second word of the title

MDTRS AKWVK VTWUQ QBRHR IWPKJ VXJVK CVKJQ PGQTR SDVBK GPODN QRDHT HSUED LHBNK VDD

Solution: Princess

Plain Text: HELLO MY NAME IS INIGO MONTROYA YOU KILLED MY FATHER PREPARE TO DIE
From the movie: The Princess Bride

Fractionated Morse Code Cipher (http://ruffnekk.stormloader.com/fractmorse_tool.html)

Key: Morsecode (Enter as Keyed Alphabet and click Generate, then decrypt)

8. Author of the poem

pspdm kzttk rxlhq gtipn eowru dmsrx z
apngc vwpcx yhtek tvyip cenku udvzu gu
krujo owsew eqzpv simoc fbapn qv
hrgly zsdgb wwvrg diiui vi

irjkh ckzce pkpzz tqpvl seu
kwyhp gvijz mccw riay jkvon c
eekec mldbs vpejo iqx i illkp izzfn yae
hsveq sspiq fcvcv yvrzt gztzu gudse l

Solution: Sharpe

Vigenere cipher (<http://rumkin.com/tools/cipher/vigenere.php>)

Passphrase: Hacker

Plain Text:

Isn't it strange how princes and kings
and clowns that caper in sawdust rings
and common people, like you and me
are builders for eternity

Each is given a list of rules
a shapeless mass; a bag of tools
And each must fashion ere life is flown
A stumbling block or a Stepping Stone

9. Mp3 file playing morse code.

Plain Text: 24601, googling 24601 gives you Valjean from Les Miserables

Solution: valjean

10. This puzzle had a problem. It had a hidden image inside the Titanic, but unless you used the same online site, you wouldn't be able to extract it.

Solution: craig

Visible Image:



Hidden Image, the flags on the wall spell "CRAIG":

