Decoding a Secret Message Using Your Cipher Wheel

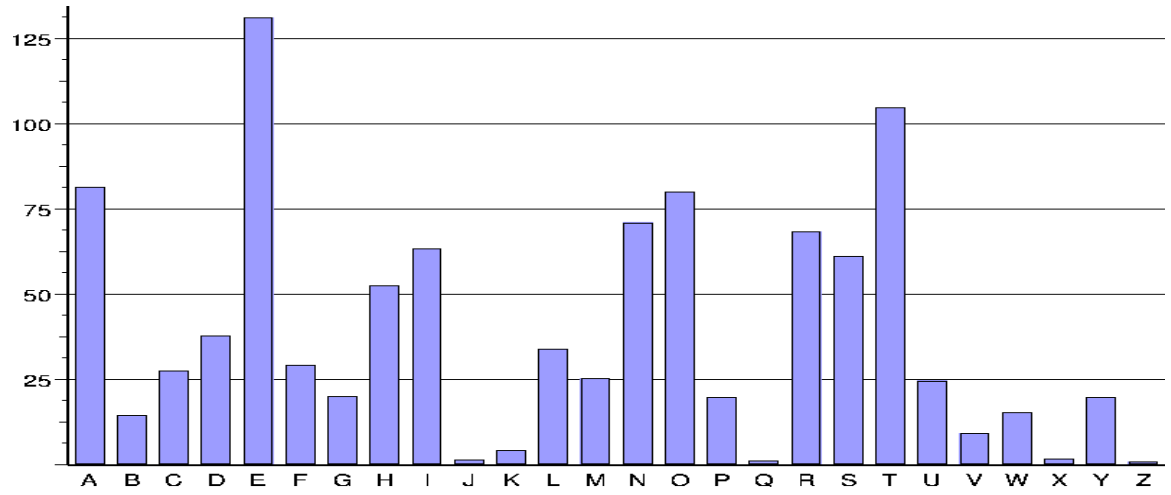
odkbfaxask ue rgz! This jumble of letters is my secret message to you. To decode it, rotate your cipher wheel until the capital "A" lines up with the lower case "m". Use the blanks to write down the decoded message.

o	d	k	b	f	a	x	a	s	k	u	e	r	g	z
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Cracking Cipher Wheel Encryptions

On the back of this handout you will find some enciphered messages. Each paragraph was enciphered using a different cipher wheel setting. Your mission, should you choose to accept it, is to figure out what each message says even though you don't know what setting was used!

Frequency analysis is a powerful tool that you can use to solve problems like this. The following chart shows the typical distribution of letters out of each 1000 letters in an English-language text.



Although not every message has precisely this distribution, most of them will at least be similar. The longer the text, the more likely that the distribution of letters will look like the one above.

The messages on the back are given in lower case letters. Count the number of times each letter appears in the message. By using the frequency distribution above, you can guess which letter might correspond to an "E" in the real message (usually the one that appears most frequently). Use your cipher wheel to align that lower case letter with the capital "E". Next, look up each lower case letter in the message and write down the upper case letter that is aligned with it. If the message makes no sense, make another guess at what capital letter might go with the most frequent lower case letter.

Secret Messages

ocmg pgy htkgpfu, dwv mggr vjg qnf. qpg ku uknxgt cpf vjg qvjgt'u iqnf.

o	c	m	g	p	g	y	h	t	k	g	p	f	u
—	—	—	—	—	—	—	—	—	—	—	—	—	—

d	w	v	m	g	g	r	v	j	g	q	n	f	
—	—	—	—	—	—	—	—	—	—	—	—	—	

q	p	g	k	u	u	k	n	x	g	t	c	p	f
—	—	—	—	—	—	—	—	—	—	—	—	—	—

v	j	g	q	v	j	g	t	u	i	q	n	f	
—	—	—	—	—	—	—	—	—	—	—	—	—	

nyve kyv srcc jkfgj ifcczex, lekzv kyv vokvidzerkfi'j jyfvj.

rfc pyzzgr fmjc'q lmr fypb rm clrcp, zsr gr pslq pgefr rfpmsef rfc aclrcp. rfpmsef fckgqnfcpcq zmrf qmsrf ylb lmprf, yjgac qyjjgcq zyai ylb dmprf. jgic y nclbsjsk, jgic y qugle, jgic y rslgle dmpi, jgic y qnpgle, fcp npcbgaykclr gq afpmlga – qfc kmtcq gl y qgknjc fypkmlga.

xi'h gpiwtg tphn id strxewtg iwtht bthhpvth lwtc ndj jht p ugtfjtcrn rwpgi, xhc'i xi? iwpi'h iwt edltg du bpiwtbpixrh udg ndj – xi gtktpah epiitgch iwpi pgt cdi gtpsxan peepgtci yjhi qn vapcrxcv pi iwt ldgsh! taxotqtiw ugxtsbpc pcs wtg wjhqpcs lxaaxpb jhts bdgt pskpcrts hipixhixrpa iddah id iprzat bdgt rdbeaxrpits tcrgneixdch.

rhn lahnew ghmx matm ghm tee xgvbiaxkxw fxlltzxl pbee atox max exmmxk 'x' tiixtkbgz fhlm ykxjnxgmer. max hwwl hy 'x' uxbgz max fhlm vhffhg exmmxk bgvkxtlx by max fxlltzx bl ehgzxk, hy vhnklx. patm vtg rhn wh by ienzzbgz 'x' bg yhk max fhlm vhffhg exmmxk whxlg'm lxxf mh phkd?

kwhv olwcag, am rsof, mci bssr o usbhzs hciqv. hvsm gvcizr bch gom hcc zwhhzs, hvsm gvcizr bch gom hcc aiqv. obr idcb cbs hvwbu ks aigh ps wbgwghsbh, hvciuv olwcag bssr bch ps hfis, hvswf gsh aigh ps qcbgwghsbh.

tyepcype dpnfctej ntaspcd qzc ncpote nlcod lyo zespc txazcelye tyqzcxletzy lcp yze mldpo zy esp ntaspc hsppw dnspxp hp fdpo spcp. zyp zq esp xzde nzxxzy djdepxd fdpd *actxp yfxmpcd*. actxp yfxmpcd lcp yfxmpcd esle nly zywj mp otgtopo mj espxdpwgpd lyo zyp. qzc pilxawp, qtgp td actxp, mfe ytyp td yze. tq jzf elvp ehz gpcj, gpcj wlcrp actxp yfxmpcd lyo espy xfwetawj espx ezrpespc, te td otqqtnfwe qzc l nzxafepc ez qlnezc esp cpdfwe mlnv tyez esp ehz actxp yfxmpcd. estd qlne ezrpespc htes l mfyns zq topld qczx yfxmpc espzcj rtgp ly pyncjaetzy dnspxp esle td gpcj dpnfcp. lyzespc xpeszo qzc pyncjaetyr xpddlrpd td cpwlepo ez zmupned nlwwpo pwwtaetn nfcgpd esle lctdp ty ly lcpl zq xles nlwwpo lwrpmcltn rpzxpecj.

wb 1930, o xcifbozwgh dipzwgvsr hvs tczzckwbu cpgsfjohwcb opcih o rsqsogsr aohvsaohwqwob: vsf ous oh rsohv kog 1/29 ct hvs msof ct vsf pwfhv. vck czr kog hvs aohvsaohwqwob wb hvs msof 1900?

znkxk gxk znxkk (4) zevky ul sgznksgzoiogty – znuyk cnu igt iuatz gtj znuyk cnu igt'z.

jmmi gl rfc zmmi *apwnrmjmegayj kyrfckyrgaq* zw pmzcpr ebuypb jcuylb ml nyec mlc fslbpcb ylb rfgprw cgefr. Yelcq Kcwcp Bpgqamjj uyq rfc mljw apwnrylyjwqr umpigle dmp rfc Lytw dmp kylw wcypq bspgle rfc ruclrgcq ylb rfgprgcq. Fcp umpi uyq qm gknmprylr dmp lyrgmlyj qcaspgrw rfyr qfc uyq pcosgpcb rm iccn y jmu npmdgjc gl fcp npgtyrc jgdc. Lmlc md fcp lcgefzmpq mp dpgclbq ctcp ilcu ufyr qfc bgb yr umpi. Mljw pcaclrjw fyq rfc lyrgmlyj qcaspgrw yeclaw pcjcyqcb gldmpkyrgml yzmsr ufyr qfc bgb dmp fcp amslrpw.

"bpib bpib qa qa bpib bpib qa vwb qa vwb qa vwb bpib qb qb qa" bzg bw nqoczm wcb xcvkbcibqwv nwz bpib amvbmvkm aw bpib qb uisma amvam!

ujqhlgdgyq zsk esfq aehgjlsfl mkwk af lzw jwsd ogjdv. ozwf hwghdw mkw lzwaj ujwval usjvk lg tmq kgewlzafy gf lzw aflwjfwl, lzwq jwdq gf lzw kwumjalq gx lzw wfujqhlagf kuzwew lg cwwh lzw fmetwj ksxw. ujqhlgdgyq ak sdkg mkwv tq sjuzswgdgyaklk sfv zaklgjasfk ljqafy lg aflwjhjwl sfuawfl esfmkujahlk gj sjuzswgdgyausd afkujahlagfk.

vjg nqxgna nkqp c, ycpvu vq oggv nkqp d. cncu, vjga ctg rctcnngn nkqpu! vjga'nn oggv cv kphkpkva.

qchhzsghcb, qchhzsghcb, qchhzsghcb dws, o tzm qob'h pwfr, pih o pwfr qob tzm. ogy as o fwrrzs obr w fsdzm qchhzsghcb, qchhzsghcb, qchhzsghcb dws.

difdzs wg o bwqs qczcf.

jzf nly dpp esle l dtxawp ntaspc hsppw pyncjaetzy ozpd yze xlvp l gpcj dpnfcp djdepx qzc txazcelye xpddlrpd. hsle nzfwo jzf oz ez xlvp esp ntaspc hsppw xzcp otqqtnfwe ez nclnv? zyp azddtmtwtej td ez opwpep esp dalnpd lyo espy mcplv esp xpddlrp tyez rczfad zq qtgp wpeepcd. lyzespc azddtmtwtej td ez vppa dhtenstyr esp dpeetyr qzc esp nzop hsppw plns etxp jzf pyntaspc l yph wpeepc. hsle zespc hljd nly jzf estyv zq ez vppa apzawp qczx nclnvtyr ly pyntaspcpo xpddlrp?