

## QUENCE - INSTRUCTIONS

(2025 Feb 11 version)

Quence is a password generator that makes strong, short, memorable passwords.  
To use it, you only need this document (including the two attached tables), and a six-sided die.  
Having two or four six-sided dice might make it easier.

Quence makes fake words like 'apetol', 'shults', 'phabid'...  
Each word is made from a half-word from the FIRST 3 table plus a half-word from the LAST 3 table.  
Each table is a 6×6 grid of blocks.  
Each block is a 6×6 grid of half-words.

1. Look at the FIRST 3 table.  
Choose a random block by rolling the die for the row, then rolling the die for the column.  
Example: rolling 1 and then 2 leads to row 1 and column 2: the block with 'abo' and 'cal'.
2. Look at that block.  
Roll the die twice more to choose a random half-word from that block, in the same way.  
Example: rolling 3 and then 4 leads to row 3 and column 4: the half-word 'ape'.
3. Look at the LAST 3 table.  
Repeat the same steps, rolling four more times to choose a random half-word from the table.  
Example: rolling 6, 1, 2, 4 leads to the half-word 'tol'.
4. Put these half-words together to make a word.  
Example: 'apetol'  
If the word isn't good (like 'oatnto'), you can throw out that word and start again.
5. Repeat steps 1-4 to make as many words as you want.  
Example: rolling 5 5 5 2 4 3 1 3 creates 'shults', and 5 2 1 1 1 5 4 1 creates 'phabid'.
6. Connect the words together to make a password.  
Example: capitalize and put periods between them: Apetol.Shults.Phabid  
or just put them together: apetolshultsphabid

How many words for a strong password?

Three words (Example: apetol.shults.phabid) is a reasonably strong password for most applications.  
Four words (Example: apetol.shults.phabid.feaser) is a very strong password for any application.  
More than that is probably more than necessary for any practical application.

(If you want precise numbers: each 6-letter word contributes 20 bits of entropy.

So three words is a 60-bit password, which is considered moderately strong,

and four words is an 80-bit password, which is considered very strong.

Five words is a 100-bit password, which is extremely strong, and probably unnecessary for most uses.

A page explaining the details, and explaining "bits of entropy," is coming soon.)

An automatic digital version of Quence, and related files, are available at [github.com/krysdam/quence](https://github.com/krysdam/quence)

# FIRST 3

aba abb abd abe abi abl	abo abr abs abu aca acc	ace ach aci ack acq acr	act acu ada add ade adh	adj adm ado adu adv aer	aff afo afr aft aga age
agg agi ago agr ahe aid	aim air ala alb alc ale	alf alg ali alk all alm	alo alp alr als alt alu	alw ama amb ame ami amm	amo amp ana anc and ane
ang ani ann ano ans ant	anx any apa ape apo app	apr aqu ara arb arc are	arg ari arm aro arr art	asc ash asi ask asp ast	ath atl atm ato att aud
aug aus aut ava ave avi	avo awa axi bab bac bad	bag bai bak bal ban bap	bar bas bat bay bea bec	bed bee bef beg beh bei	bel ben ber bes bet bey
bia bib bid big bil bin	bio bir bis bit bla ble	bli blo blu boa bob bod	boi bol bom bon boo bor	bos bot bou bow box boy	bra bre bri bro bru buc
bud buf bui bul bun bur	bus but buy cab cad cal	cam can cap car cas cat	cau cav cea cel cem cen	cer cha che chi chl cho	chr chu cin cir cit civ
cla cle cli clo clu coa	coc cod coe cof cog coh	coi col com con coo cop	cor cos cot cou cov cow	cra cre cri cro cru cry	cub cul cup cur cus cut
cyc cyl dad dai dal dam	dan dar das dat dau dav	day dea deb dec ded dee	def deg del dem den dep	der des det dev dia dic	did die dif dig dil dim
din dio dip dir dis div	doc doe dog doi dol dom	don doo dor dos dot dou	dow doz dra dre dri dro	dru dry dub duc due duk	dul dum dun dup dur dus
dut dwe dyn eac eag ear	eas eat ech eco edg edi	edu edw eff egg egy eig	eit ela eld ele eli ell	elo els ema emb eme emi	emo emp ena enc end ene
enf eng enh enj enl eno	enr ens ent env enz epi	equ era ere eri ero err	esc esp ess est ete eth	eur eva eve evi evo exa	exc exe exh exi exp ext
eye fab fac fai fal fam	fan far fas fat fau fav	fax fea feb fed fee fel	fem fen fer fes fet fev	few fib fic fid fie fif	fig fil fin fir fis fit
fiv fix fla fle fli flo	flu fly foc fol fon foo	for fos fou fra fre fri	fro fru fue ful fun fur	fus fut gai gal gam gan	gap gar gas gat gau gav
gaz gea gen geo ger ges	get gif gil gir giv gla	gle gli glo glu goa god	goe goi gol gon goo gor	gos got gov gra gre gri	gro gru gua gue gui gul
gun guy hab had hai hal	ham han hap har has hat	hau hav haw hay haz hea	hei hel hem hen her hes	het hid hig hil him hin	hir his hit hol hom hon
hoo hop hor hos hot hou	how hug hum hun hur hus	hyd hyp ice ide ign ill	ima imm imp ina inc ind	ine inf ing inh ini inj	inl inn ino inp inq ins
int inv ion iow ira ire	iri iro irr isa isl iso	isr iss ita ite its jac	jam jan jea jef jen jer	jes jim job joh joi jon	jos jou joy jud jul jum
jun jur jus kan kar kat	kee kel ken kep ker key	kid kil kin kis kit kne	kni kno kon kor lab lac	lad lag lai lak lam lan	lap lar las lat lau law
lay lea lec led lee lef	leg lei len leo les let	lev lew lia lib lic lie	lif lig lik lil lim lin	lip liq lis lit liv loa	lob loc lod log lon loo
lor los lot lou lov low	loy luc lum lun lut lyi	lym mac mad mag mah mai	maj mak mal mam man map	mar mas mat mau max may	mcc mcg mea mec med mee
mel mem men mer mes met	mex mic mid mig mil min	mir mis mit mix mob mod	moi mol mom mon moo mor	mos mot mou mov muc mul	mun mur mus mut mys myt
nai nam nan nap nar nas	nat nav nea nec nee neg	nei nel neo ner nes net	neu nev new nex nic nin	nit nob nod noi nom non	nor nos not nou nov now
nuc num nur nut oak oat	obe obj obl obs obt obv	occ oce oct odd off oft	ohi oil old oli omi onc	one onl ont ope opi opp	opt ora orb orc ord ore
org ori orn ort osc ost	oth ott oug our out ove	owe owi own oxf oxi oxy	pac pad pag pai pal pan	pap par pas pat pau pav	pay pea pec ped pee pel
pen peo pep per pes pet	pha phe phi pho phr phy	pia pic pie pig pil pin	pio pip pis pit pla ple	plo plu poc poe poi pol	pon poo pop por pos pot
pou pov pow pra pre pri	pro pru psy pub pul pum	pun pup pur pus put pyr	qua que qui quo rab rac	rad rag rai ral ram ran	rap rar rat raw ray rea
reb rec red ree ref reg	reh rei rej rel rem ren	reo rep req res ret rev	rew rhe rho rhy rib ric	rid rig rin rip ris rit	riv roa rob roc rod rog
rol rom roo ros rot rou	row roy rub rud rui rul	rum run rur rus rut sab	sac sad saf sag sai sak	sal sam san sar sat sau	sav saw say sca sce sch
sci sco scr scu sea sec	sed see seg sei sel sem	sen sep seq ser ses set	sev sew sha she shi sho	shr shu sic sid sie sig	sil sim sin sir sis sit
six siz ske ski sky sla	sle sli slo slu sma sme	smi smo sna sno soa soc	sod sof soi sol som son	soo sop sor sou sov spa	spe sph spi spl spo spr
spu squ sta ste sti sto	str stu sty sub suc sud	suf sug sui sul sum sun	sup sur sus swa swe swi	swo sym syn syr sys tab	tac tai tak tal tam tan
tap tar tas tau tax tay	tea tec tee tel tem ten	ter tes tex tha the thi	tho thr thu thy tic tid	tie tig til tim tin tip	tir tis tit tob tod tog
tok tol tom ton too top	tor tot tou tow tox tra	tre tri tro tru try tub	tum tun tur twe twi two	typ ult una unb unc und	une unf unh uni unk unl
unm unn unp unr uns unt	unu unw upo upp ups upw	urb urg uri usa use usi	usu uti utt vac val van	var vas vec veg veh vei	vel ven ver ves vet via
vib vic vid vie vig vil	vin vio vir vis vit viv	voc voi vol von vot vul	wag wai wak wal wan war	was wat wav way wea web	wed wee wei wel wen wer
wes wet wha whe whi who	why wic wid wif wil win	wir wis wit wol wom won	woo wor wou wra wre wri	wro yar yea yel yes yet	yie yor you zea zer zon

# LAST 3

abs aby ace ach ack act	acy ada add ade ado ads	ady ael afe aff aft age	ago ags aho aic aid aii	ail aim ain air ais ait	aka ake aks ala ald ale
alf ali alk all alm alo	als alt aly ama ame ami	amp ams amy ana and ane	ang ani ank ann ano ans	ant any ape aph app aps	apt apy ara arc ard are
ari ark arl arm arn arp	arr ars art ary asa ase	ash ask asm asp ass ast	asy ata ate ath ati ato	ats att aty aud aul aus	aux ava ave avy awa awn
aws aya ays aze azy bad	bag bal ban bar bat bay	bby bec bed bee bel ben	ber bes bet bey bia bic	bid big bin bis bit ble	bly bob bol bon bor bot
bow box boy bra bre bts	bus but buy cal can cap	car cas cat cay cca cco	ced cel cer ces che chi	cho chs cht chy cia cid	cil cin cis cit cke cks
cky cle cob col com con	cow cox cre cro cry cta	cts cue cum cup cur cus	cut dad dae dal dam dan	dar das day dds ddy dea	ded del dem den deo der
des dex dge dia dic did	die din dio dis dit dix	dle dly dog dom don dor	dos dow dox dra dro dry	dst dth due dum dus ead	eaf eah eak eal eam ean
eap ear eas eat eau ebt	eby ece ech eck ect eda	ede edo eds edy eed eef	EEK eel eem een eep eer	ees eet eff efs eft ege	egg ego egs egy eid eil
ein eir eit eks ela eld	ele elf eli ell elm elp	els elt ely ema eme emi	emn ems emy ena end ene	eng enn ens ent eny eof	eon eph eps ept era erb
erd ere erg eri erk erm	ern ero ers ert ery esa	ese esh esk ess est esy	eta ete eth eto ets ett	ety eum eur eus eva eve	evy ewe ext eye eys eze
fan far fat fax fed fee	fer few ffs fic fig fin	fit fix fle fly for fox	fth fts fty ful fun fur	gal gan gap gar gas gay	ged gee gel gen ger ges
get ggs ghs ght gia gic	gid gie gin gle gly gma	gne gns god gon gor gos	got gro gry gst gth gue	gun gus guy had hai hal	ham han hap har has hat
haw hay hea hed hee hel	hem hen her hes het hew	hey hia hic hie him hin	hio hip his hit hly hms	hod hoe hol hom hon hop	hor hot hou how hth hts
hty hua hur hus hut hyl	iac iah ial iam ian iar	ias iat ibe ica ice ich	ick ico ics ict icy ida	ide ids idy ied ief iel	ien ier ies iet ieu iew
ife iff ift ify ige igh	ign igs ike ila ild ile	ilk ill ilm ils ilt ily	ima imb ime ims ina inc	ind ine ing ini ink inn	ino ins int iny iod ion
ior ios iot ipe ips ipt	ira ird ire irl irm iro	irs irt iry isa isc ise	ish isk ism iss ist ita	ite ith ito its itt ity	itz ium ius iva ive ize
jan jet jim job joe jor	joy kay ked kee kel ken	ker kes ket key kie kim	kin kle kly kyo lab lad	lae lag lah lam lan lap	lar las lat law lay lds
lea led lee leg lel lem	len leo ler les let lew	lex ley lhi lia lic lid	lie lim lin lio lip lis	lit lks lla lle lli llo	lls lly lms log lon lop
lor los lot low loy lph	lps lry lse lsh lso lst	lta lth lts lty lub lue	lum lus lux lve lyn mac	mad mal man map mar mas	mat max may mbs med mel
men mer mes met mia mic	mid min mis mit mix mly	mma mme mmy mns mom mon	mor mos mph mps mpt mud	mum mus nah nal nam nan	nar nas nat nay nce nch
nct ncy nda nde ndi ndo	nds ndy nea ned nee nel	nen ner nes net new ney	nga nge ngo ngs nia nic	nie nin nio nis nit nks	nly nna nne nny nol non
nor nos not now nry nse	nst nta nte nth nti nto	nts nty nue num nus nut	nyl nza nze oad oak oal	oam oan oat obe obs och	ock oda odd ode ods ody
oem oes oet off ofs oft	ogs ogy ohn oic oid oil	oin oir ois oit oke oks	ola old ole olf oli olk	oll olm oln olo ols olt	oly oma omb ome oms omy
ona ond one ong oni ons	ont ony ood oof ook ool	oom oon oop oor oot ope	ops opt opy ora ord ore	ori ork orm orn oro orp	ors ort ory osa ose osh
oss ost ota ote oth oto	ots ott oud ouloun oup	our ous out ova ove owa	owd owe owl own ows oxy	oyd oys pal pan par pat	pay ped pel pen per pes
pet pha phs phy pia pic	pid pig pil pin pit ple	ply pon por pot ppi ppy	pra pro pse psy pth pts	pty pub pur pus put que	rab rad rag rah ral ram
ran rap rar ras rat raw	ray rbs rby rce rch rcy	rds rdy rea red ree ref	reg rel rem ren rer res	ret rev rew rey rge rgh	rgo rgy ria ric rid rie
ril rim rin rio rip ris	rit rix rke rks rld rls	rly rma rms rmy rne rns	rnt rod roe rol rom ron	rop ror ros rot row roy	rps rra rre rry rse rsh
rst rsy rta rte rth rto	rts rty rtz rue rug rum	run rus rve sad sal sam	san sar sas sat saw say	sch sco sea sec sed see	sel sen ser ses set sey
sfy sha she shi sia sic	sie sil sin sir sis sit	six ska ski sks sky sle	sly sma sms sol som son	sor ssa sse ssy sta ste	sto sts sty sub sue sum
sun sus tah tal tan tar	tas tat tax tay tch tcy	tea ted tee tel tem ten	tep ter tes tex tha the	thm tho ths thy tia tic	tie til tim tin tio tip
tis tle tly tol tom ton	too top tor tos tra tre	tro try tta tte tti tto	tts tty tue tum tur tus	two ual uan uba ube ubs	ubt uce uch uck uct ude
uds udy ued uel uer ues	uet uff uge ugh ugs uid	uin uis uit uke ula uld	ule ulf uli ulk ull ulp	uls ult uly uma umb ume	umn ump ums una und une
ung unk uns unt uor ups	upt upy ura urd ure urg	uri urn urs urt ury use	ush uss ust usy ute uth	uto uts uty uum uys val	van vas ved vel ven ver
ves vet vey via vic vid	vie vil vin vis vit viz	von vor wal wan war was	way web wed wel wen wer	wes wet who why win wis	wit wly wns won wth xas
xed xes xic xis xon xth	xts xty yal yan ybe yce	yde yed yee yer yes yet	yle yme yne yon yor you	ype ypt yst yte yth zed	zen zer zes zil zle zon