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 $Vjg"tg og fkgu"r tqxkfgf" jgtgkp"ctg"Dw {gtøu"uqng"cpf" gzenwukxg"tg og fkgu0""GpfTwp"Vge jpqnq ikgu"u jcnn" pqv"dg"nkcdng"hqt"cp{"fktgev."kpfktgev."urgekcn."kpekfgpvcn"qt"eqpugswgpvkcn"fc oc igu."yjgvjgt"dcugf"qp" eqpvtcev."vqtv"qt"cp{"qvjgt"ng icn"vjgqt {0}}$

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40" Rnwi "qpg"gpf"qh"vjg"uwr rnkgf"CE" rqygt"eqtf"kpvq"cp": 7/492"XCE"qwvngv0

50" Rnwi"vjg"qvjgt"gpf"kpvq"vjg"CE"kprwv"eqppgevqt"qp"vjg"ejcuuku"tgct"rcpgn"qh"vjg"Vgorwu"NZ0

Rnceg"vjg"cpvgppc"qp"c" ł cv." r tghgtcdn { " o gvcnnke"uwthceg" y j kng"v j g"wpkv"ku"ugcte j kp i "hqt"v j g"uk i pcn0"" Ocmg"uwtg"v j cv"kv"ku"pqv"dnqemg f"d { "nct i g" o gvcnnke"qdlgevu"enqugt"v j cp"qpg" o gvgt0""Cnv j qw i j "v j g"cpvgppc" u j qwn f" pqt o cnn { "dg"kpuvcnng f"kp"c" xgtvkecn"qtkgpvcvkqp. "wuwcnn { " o wnvkr cv j "eqp fkvkqpu" fwg"vq"uk i pcn"tg/ ł gevkqpu"kp fqqtu"ecwug"cv"ngcuv"uq o g"qh"v j g"uk i pcn"vq"dg" j qtk | qpvcnn { " r qnctk | g f."uq" fq"pqv"dg"uwt r tkug f" kh" { qw"Łp f"v j cv"v j g"wpkv" y kn" y qtm" y kv j "v j g"cpvgppc" qtkgpvg f"gkv j gt" y c {0"" Ownvkr cv j "eqp fkvkqpu"ecp"cnuq" ecwug"cpqv j gt"ghhgev<""uk i pcn"ecpegnncvkqp0""Ukpeg"v j g" y cxgngp i v j "qh"v j g"uk i pcn"ku"qn { "cdqwv"34"vq"52" egpvk o gvgtu." o qxg o gpv"qh"v j g"cpvgppc"lwuv"c"hg y "egpvk o gvgtu"ecp"uq o gvk o gu"ecwug"uk i pkŁecpv"uk i pcn" uvtgp i v j "ej cp i gu0 Kpkvkcnn{"wrqp"rqygt"wr<

30" Vjg"wpkv" y knn"nki jv"vjg"tgf"Cnct o "Uvcvwu"NGF"hqt"cdqwv"vgp"ugeqpfu0

40" Vjgp"kv" y knn"eqpvkpwqwun { "nk i j v"vjg" i tggp"U { pe"Uvcvwu"NGF0

50" Y jgp"vjg"wpkv"jcu"fgvgevgf"c"EFOC"ukipcn."vjg"itggp"U{pe"Uvcvwu"NGF" y knn"dgikp"vq" łcuj "xgt{" unqyn{"*cdqwv"c"06" J | "tcvg+0

60" Cu"vjg"wpkv"nqemu"qpvq"vjg"EFOC"ukipcn"cpf"dgikpu"vq"fgeqfg"vjg"vkokpi"fcvc."vjg"itggp"U{pe" Uvcvwu"NGF" y knn"łcuj "xgt{"tcrkfn{"*cdqwv"c"8" J | "tcvg+"wpvkn"vjg"fcvc"ku"hwnn{"fgeqfgf0

70" Vjgp"vjg" i tggp"U{pe"Uvcvwu"NGF" y knn" r wnug"cv" r tgekugn {"c"3" J |"tcvg."u{pejtqpk | gf"vq"WVE"ugeqpfu." y kvj"c"ujqtv"qp" f wtcvkqp" tgncvkxg"vq"vjg"qhh" f wtcvkqp0

 $Cv"vjku"rqkpv."vjg"EFOC"vkog"cpf"htgswgpe{"gpikpg"jcu"hwm{"u{pejtqpk|gf."cpf"{qw"oc{"rtqeggf"vq" rgtocpgpvn{"oqwpvkpi"vjg"ejcuuku"cpf"cpvgppc"kp"vjg"fguktgf"nqcvkqp0}$

 $Kh"vjku"ugswgpeg"jcu"pqv"qeewttgf" y kvjkp"v y gpv{" o kpwvgu."{qw"ujqwnf" o qxg"vjg"cpvgppc"cpflqt"ejcpig" kvu"qtkgpvcvkqp"cpf"tgvt{0""Kh"{qw"ctg"wpcdng"vq"Lpf"cp"cpvgppc"nqecvkqp" y jgtg"vjg"wpkv" y knn"ceswktg"vjg" EFOC"uk i pcnu."{qw" o c{"pqv"jcxg"egnnwnct"eqxgtcig"kp"{qwt"ctgc"qt"vjg"uk i pcn" o k i jv"dg"vqq" y gcm"kp" {qwt"hceknkv{0""Hktuv."wukpi "vjg"ugvefocejcppgnugv"eq o o cpf."vt{"ejcpikpi "vjg"ejcppgnugv"qp"{qwt" wpkv"y kvj"y jg"g"kvjg" qwt" hceknkv{0""Hktuv."wukpi "vjg"ugvefocejcppgnugv"eq o o cpf."vt{"ejcpikpi "vjg"ejcppgnugv"qp"{qwt" wpkv"y kvj"y jg"REU"htgswgpekgu0""Kh"{qw"ctg"uvknn"wpcdng"vq"tgegkxg"uk i pcnu."{qw"ujqwnf"eqp/ vkpwg"vq"vt{"hqt"cv"ngcuv"c"fc{."ukpeg"dcug"uvcvkqpu"ctg"vcmgp"fqyp"hqt"ugtxkeg"htq o "vk o g"vq"vk og0$

"

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

 $Wukpi"uvcpfctf"3; "o"tcem" o qwpvkpi" jctfyctg." o qwpv" vjg" wpkv" kp" vjg" rtgxkqwun {"uwtxg {gf"nqecvkqp0} or the second se$

 $\label{eq:chvgt} Chvgt"eqp\ensuremath{\underline{}} vjgug"rctcogvgtu"kp" \{qwt"vgtokpcn."crrn \{"rqygt"vq"vjg"Vgorwu"NZ0""Chvgt"cdqwv"42" ugeqpfu." \{qwt"vgtokpcn"ujqwnf"fkurnc \{"c"ugswgpeg"qh"dqqv" oguucigu"ukoknct"vq"vjgug
$

+!7121.1151.111!Mjovy!Cppumpbefs!w2/11!1902803115!+

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qdofu43;!QDofu0GBTU!JJJ!8:D:84!bu!1y2111-!11!1f!gf!11!11!44
!!!!uy`tubsu`qu)ly1d11*;;331!czuft-!CDS29):b72*;CvstuXsFo!CvstuSeFo!OpVGmpx!
!!!!TSBNTJ[F>1y2811-!TSBN`COE>1y1911-!bttjhofe!JSR!23/
fui1;!sfhjtufsfe!bt!QDofu0GBTU!JJJ!8:D:84
qdofu43;!2!dbset`gpvoe/
Ufnqvt!TD631!gmbti!efwjdf;!2111111!bu!3111111
!Bne0Gvkjutv!Fyufoefe!Rvfsz!Ubcmf!w2/4!bu!1y1151
ovncfs!pg!DGJ!dijqt;!2
Dsfbujoh!8!NUE!qbsujujpot!po! Ufnqvt!TD631!Gmbti!Cbol ;
1y1111111.1y111f1111!;! Ufnqvt!lfsofm
nue;!Hjwjoh!pvu!efwjdf!1!up!Ufnqvt!lfsofm
lylllfllll.lyll2lllll!;! Ufnqvt!Mp!CppuMes
nue;!Hjwjoh!pvu!efwjdf!2!up!Ufnqvt!Mp!CppuMes
1y11211111.1y11311111!;! Ufnqvt!0cppu
nue;!Hjwjoh!pvu!efwjdf!3!up!Ufnqvt!0cppu
1y11311111.1y11411111!;! Ufnqvt!Ompht
nue;!Hjwjoh!pvu!efwjdf!4!up!Ufnqvt!0mpht
1y11411111.1y11:11111!;! Ufnqvt!GBDUPSZ!sppugt
nue;!Hjwjoh!pvu!efwjdf!5!up!Ufnqvt!GBDUPSZ!sppugt
lyl1:1111.lyl1gf1111!;! Ufnqvt!VQHSBEF!sppugt
nue;!Hjwjoh!pvu!efwjdf!6!up!Ufnqvt!VQHSBEF!sppugt
lyllgfllll.lyl2llllll!;! Ufnqvt!Ij!CppuMes
nue;!Hjwjoh!pvu!efwjdf!7!up!Ufnqvt!Ij!CppuMes
OFU5;!Mjovy!UDQ0JQ!2/1!gps!OFU5/1
JQ!Qspupdpmt;!JDNQ-!VEQ-!UDQ-!JHNQ
JQ;!spvujoh!dbdif!ibti!ubcmf!pg!623!cvdlfut-!5Lczuft
UDQ;!Ibti!ubcmft!dpogjhvsfe!)ftubcmjtife!3159!cjoe!3159*
OFU5;!Vojy!epnbjo!tpdlfut!2/10TNQ!gps!Mjovy!OFU5/1/
nuecmpdl`pqfo
pl
SBNEJTL;!Dpnqsfttfe!jnbhf!gpvoe!bu!cmpdl!1
nuecmpdl`sfmfbtf
pl
WGT; !Npvoufe!sppu!)fyu3!gjmftztufn*/
Gsffjoh!vovtfe!lfsofm!nfnpsz;!791!gsffe
JOJU; !wfstjpo!3/87!cppujoh
0fud0sd/e0sd/T;!0cjo;!jt!b!ejsfdupsz
nuecmpdl`pqfo
pl
nuecmpdl`pqfo
pl
Mpbeioh!DENB
Mpbejoh!Lfzqbe0WGE
Gsj!Bvh!31!11;64;65!3115!.1/818239!tfdpoet
3115
Tfuujoh!tztufn!ujnf!vtjoh!ixdmpdl
JOJU; !Foufsjoh!svomfwfm; !4
Foufsjoh!nvmujvtfs///
Buufnqujoh!up!dpogjhvsf!fui1!cz!dpoubdujoh!b!EIDQ!tfswfs///
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Cv"vjku"rqkpv."kh"{qw"fq"pqv"jcxg"c"FJER"ugtxgt"eqpLiwtgf"qp"{qwt"pgvyqtm"vjg"wpkv"ykm"vkog/qwv"
cpf"rtkpv"vjgug" oguucigu<
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Ufnqvt!MY!DENB!EIDQ!Dmjfou!xbt!vobcmf!up!gjoe!uif!EIDQ!Tfswfs"
Gjy!uif!qspcmfn!boe!sf.cppu!ps!tfu!vq!tubujd!JQ!beesftt
cz!svoojoh!ofudpogjh/
eotepnbjoobnf;!Iptu!obnf!mpplvq!gbjmvsf
)opof*
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Vjgp"vjgug" o guucigu"ctg" rtkpvgf."kp"gkvjgt"ecug<

 $\label{eq:viscous} Vjg"hqnnqykpi"ku"c"ucorng"vtcpuetkrv"yjkej"knnwuvtcvgu"vjg"wug"qh"ofudpogjh0""Vjg"gpvtkgu"ocfg"d{"vjg"wugt"ctg"wpfgtnkpgf"cpf"ctg"rtqxkfgf"rwtgn{"hqt"knnwuvtcvkxg"rwtrqugu0"" [qw" owuv"rtqxkfg"gswkxc/ngpv"gpvtkgu"vjcv"ctg"urgekLe"vq"{qwt"pgvyqtm0""Vjqug"ujqyp"jgtg"ctg"crrtqrtkcvg"hqt"c"v{rkecn"pgvyqtm"vjcv"fqgu"pqv"w // O Ornd cv$

Dbmdvmbujoh!uif!CSPBEDBTU!boe!OFUXPSL!beesfttft/// Cspbedbtu!>!2:3/279/2/358!!!!!Ofuxpsl!>!2:3/279/2/351

Zpvs!Ufnqvt!MY!DENB t!dvssfou!JQ!beesftt-!gvmm!iptuobnf-!boe!cbtf!iptuobnf; 2:3/279/2/356!!!!!!!douq/zpvs/epnbjo!!!!douq

... EPNBJO! OBNFTFSWFS) T* ! beesftt!tfuujoh

Xjmm!zpvs!Ufnqvt!MY!DENB!cf!bddfttjoh!b!obnftfswfs!)\z^ft-!\o^p*@!<u>z</u>

Tfu!uif!JQ!beesftt!pg!uif!qsjnbsz!obnf!tfswfs!up!vtf!gps!epnbjo!zpvs/epnbjo/ Foufs!qsjnbsz!obnf!tfswfs!JQ!beesftt!)bbb/ccc/ddd/eee*;!<u>2:3/279/2/2</u>

Xjmm!zpvs!Ufnqvt!MY!DENB!cf!bddfttjoh!b!tfdpoebsz!obnftfswfs!)\z^ft-!\o^p*@!z

Tfu!uif!JQ!beesftt!pg!uif!tfdpoebsz!obnf!tfswfs!up!vtf!gps!epnbjo!zpvs/epnbjo/ Foufs!tfdpoebsz!obnf!tfswfs!JQ!beesftt!)bbb/ccc/ddd/eee*;!<u>2:3/279/2/3</u>

Tfuujoh!vq!UDQ0JQ/// Dsfbujoh!0fud0IPTUOBNF/// Dsfbujoh!0fud0sd/e0sd/jofu2/// Dsfbujoh!0fud0ofuxpslt/// Dsfbujoh!0fud0iptut/// Dsfbujoh!0fud0sftpmw/dpog///

Kh"{qw"jcxg"ocfg"ejcpigu"vq"{qwt"pgvyqtm"eqpŁiwtcvkqp"wukpi"**ofudpogjh**."{qw"ujqwnf"ujwvfqyp"vjg" Vgorwu"NZ"cpf"tgdqqv"kv0""Vjgtg"ctg"vyq"yc{u"vq"fq"vjku<

 $30^{"}$ E { eng["]rqygt["]vq["]vjg["]Vg o rwu["]NZ0

40" Kuuwg"vjg"ujwvfqyp" ykvj"tgdqqv"eqoocpf"cv"vjg"ujgm"rtqorv<

Ufnqvt!MY!DENB)sppuAdouq;;*.?!tivuepxo!.s!opx

Kh" {qw"ctg"wukp i "vjg"TU/454"ugtkcn"KlQ" rqtv"vq"eq o o wpkecvg" y kvj "vjg"Vg o rwu"NZ." {qw" y km"dg"cdng"vq" ugg"vjg"mgtpgn" i gpgtcvgf"dqqv" o guuc i gu" y jgp"vjg"wpkv"tgdqqvu0"" [qw"ujqwnf"pqvg"vjg"nkpg

Dpogjhvsjoh!fui1!bt!2:3/279/2/356///

kh"{qw"jcxg"ugv"wr"c"uvcvke"KR"cfftguu."qt"vjku"nkpg

Buufnqujoh!up!dpogjhvsf!fui1!cz!dpoubdujoh!b!EIDQ!tfswfs///

 $\label{eq:linear} kh" \{qw"ctg"wukpi"FJER0""Kv"crrgctu"pgct"vjg"gpf"qh"vjg"mgtpgn" igpgtcvgf"dqqv" oguucigu0"" igpgtcvgf"dqqv" oguucigu0" igpgtcvgf"dqqv" oguucigu0" igpgtcvgf"dqqv" oguucigu0" igpgtcvgf"dqqv" oguucigu0" igpgtcvgf"dqqv" oguucigu0" igpgtcvgf" igpgtc$

Kh" {qw"ctg"wukpi"FJER"cpf"ctg"pqv"wukpi"vjg"TU/454"ugtkcn"KlQ"rqtv." {qw"ykm"jcxg"vq"ejgem"vjg"

 $\label{eq:FJER} F J ER"eqpLiwtcvkqp"kphqt o cvkqp" o ckpvckpgf"d{" {qwt" F J ER"ugtxgt"vq" fgvgt o kpg"vjg"gzrgevgf"KR"cf/ftguu"cpf"nqi"kp"vq"vjg"Vg o rwu"NZ"wukpi"ufmofu"qt"tti"vq"xgtkh{"uweeguuhwn" F J ER"eqpLiwtcvkqp0"" Tghgt"vq"vjg"uwdugswgpv"vqrkeu"kp"vjku"ugevkqp"$ *Wukp i "Vgnpgv*"cpf"*Wukp i "UU J* $."hqt" fgvcknu"qp"nqi i kpi "kp" vq"vjg"Vg o rwu"NZ"; cvg"nqi i gf"kp." {qw" o c{" rgthqt o "vjg"hqnnqy kpi "ejgemu0} }$

Kh"{qw"ctg"pqv"wukpi"FJER."vjg"KR"cfftguu"ujqyp"ujqwnf" o cvej "vjg"uvcvke"KR"cfftguu" y jkej"{qw" gpvgtgf"fwtkpi"vjg"ofudpogjh"rtqegfwtg0""Kh"uq."nqi"kp"cu"õtqqvö"cv"vjg"nqikp"rtqorv"cpf"ejgem"vjg" qvjgt"eqpŁiwtcvkqp"rctcogvgtu"wukpi"jgdpogjh<

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+++++	+++	++	+++	+++	++	++	++	++	++	++	++	++	++•	++	++	++	++	++	++	++	++	++	++	++	+-	++	++	++	++	++	++	+-	++	++	++	++	++4	++	++
+!!!!	!!!	!!	!!!		!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!	!!	!!	!!	!!		!!!	! +
+!!!!	Uif	!U	fnq	Ivt	!M	Y!	DEI	NВ	!0	fu	xŗ	s	L!I	IJj	inf	E! (Qs	pι	ıpo	lp	n !	dp	og	ŗjŀ	v	sb	uj	ро	!i	bt	! c	f	Eo	!v	de	bu	ıfe	2/!	! +
+!!!!	!!!	!!	!!!	!!!	!!	!!	!!	!!	!!	!!	!!	1	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!	!!	!!	!!	!!	!!!	!!!	! +
+!!!!	!!!	!!	!!!		Qm	fb	tf	!s	£.	сp	pu	ι!c	p	x!	aī	ps	!u	if	E!(li	bo	hf	t!	uŗ	! 1	ıb	lf	!f	gg	fd	u/	1	!!	!!	!!	!!			! +
+!!!!	!!!	!!	!!!	!!!	!!	!!	!!	!!	!!	!!	!!	1	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!!	!	!!	!!	!!	!!	!!!	!!!	! +
+++++	+++	++	+++	+++	++	++	++	++	++	++	++	++	++•	++	++	++	++	++	++	++	++	++	++	++	+-	++	++	++	++	++	++	•+•	++	++	++	++	++4	++	++
+++++	+++	++	+++	+++	++	++	++	++	++	++	++	++	++•	++	++	++	++	++	++	++	++	++	++	++	+-	++	++	++	++	++	++	+-	++	++	++	++	++4	++	++

 $\label{eq:constraint} \begin{aligned} Qrgtcvkpi"vjg"Vgorwu"NZ"cu"c"Uvtcvwo"3"Ugtxgt"ku"vjg"tgeqoogpfgf"oqfg0"" [qw"oc{"qrgtcvg"vjg"wpkv" cu"c"Uvtcvwo"4"ugtxgt"dwv"ukpeg"vjgtg"ctg"kppwogtcdng" yc{u"vq"eqpLiwtg" {qwt"pgvyqtm" ykvj "Uvtcvwo"4" ugtxgtu."urgekLe"kputwevkqpu"hqt" jqy "vq"fq"vjcv"ctg"dg{qpf"vjg"ueqrg"qh"vjku" ocpwcn0"" I gpgtcn"kpuvtwe/vkqpu"ctg<$

Gfkv"PVR0EQPH

 $[qw" o wuv"gfkv"vjg"pvr0eqph"Lng"kp"qtfgt"vq"rqkpv" {qwt"Uvtcvw o "4"ugtxgt"cv"c"Uvtcvw o "3"ugtxgt0""Gfkv" lgvelpvr0eqph"cpf"cff" {qwt"ugtxgt"nkpg*u+0""*Ugg"$ *Wukp i "Gfkv*"dgnq y0+"" Jgtg"ku"cp"gzc o rng<

! tfswfs!2:3/279/2/2

 $Qt."\texttt{kh}"\{qw"\texttt{ugv}"wr"\texttt{c}"\texttt{fq}\,o\,\texttt{ckp}"\texttt{pc}\,o\,\texttt{g}"\texttt{ugtxgt}"\texttt{xkc}"\texttt{ofudpogjh}."j\,\texttt{gtg}"\texttt{ku}"\texttt{cpqv}j\,\texttt{gt}"\texttt{gzc}\,o\,\texttt{rng}<100\%$

! tfswfs!zpvs/ujnftfswfs/dpn

Do not remove the server lines for the refclock. Even if your Time Server is not connected to an antenna, the refclock server lines must remain.

Pqy"ucxg"vjg"gfkvgf"Lng"cpf"eqr{"kv"vq"vjg"pqp/xqncvkng"1cuj"rctvkvkqp"ykvj"vjku"eqoocpf<

! dq!.q!0fud0ouq/dpog!0cppu0fud

O cum"Cnct o

Kp"Uvtevw o "3"qrgtevkqp"cp"enet o "yknn"dg"kpfkeevgf" y jgp"vjgtg"ku"c"nquu"qh"uk i pen0""Hqt"Uvtevw o "4"qrgte/ vkqp" {qw" oc {"pqv" y cpv"vq"ugg"vjku"enet o 0"" [qw"eep" o cum"kv"*rtgxgpv"kv"htq o "ujqykpi+"d {"wukpi"vjg" eqpuqng"rqtv"*ugtkenlpgv yqtm+"eq o ocpf"tfutjhgmunbtl0""Qt."qp"vjg"htqpv/rcpgn"mg {rcflfkurne{"iq" vq"vjg"Tgegkxgt"uwd o gpw."vjgp"vq"Uk i HnvOcum0

 $C"xgt \{"eq o rcev" gfkvqt"ku" cxckncdng"qp"vjg"u \{uvg o "hqt"gfkvkpi" \& hgu < ""\texttt{feju}""Kh" \{qw"uvctv"\texttt{feju}" y kvjqwv" i kxkpi "kv" c" & Lng" pc o g"vq" qrgp. "kv" y km" fkurnc { "kvu" jgnr"uetggp."ujq y kpi" cm"uw rqtvg f"mg { uvtqmgu0"" for the standard of the st$


[qw"ecp"xgtkh{"vjcv"cwvjgpvkecvkqp"ku"dgkpi"wugf"d{"kuuwkpi"vjg"eqoocpf

bttpdjbujpot

 $vq^{fkurnc} \{vjg^{e}jctcevgtkuvkeu^{qh}vjg^{e}nkgpv^{u}gtxgt^{c}uuqekcvkqpu0^{"K}p^{v}jg^{o}cwvjö^{e}qnwop^{qh}vjg^{fkurnc} \{., \{qw^{u}ujqwnf^{u}ugg^{o}QMö^{h}qt^{v}vjg^{t}qy^{e}qttgurqpfkpi^{v}q^{v}vjg^{U}Vgorwu^{N}Z^{u}gtxgt^{U}^{"K}h^{*} \{qw^{u}ugg^{o}dcfö^{*}, \{qw^{u}ujqwnf^{u}vjg^{u}ovg^{v}vjg^{v}vjg^{v}vjg^{U}Vgorwu^{N}Z^{u}gtxgt^{U}^{"K}h^{*} \{qw^{u}ugg^{o}dcfö^{*}, \{qw^{u}ujqwnf^{u}vjg^{u}ovg^{v}vjg^{u}vg^{v}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vjg^{u}vq^{u}vq^{u}vq^{u}vjg^{u}vq^{u}v$

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 " Ugv<" " " " dqvpqutdpogjh</th>

 " Vg o rwu"NZ"tgurqpug<" " Kpvgtcevkxg"u j gm"uetkrv"ku"uvctvg f0</td>

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"	$Swgt\{<"$	"	"	dqvtfsujnf
"	Vg o rwu"	NZ"tgurq	pug<"	Dvssfou!Tfsjbm!Ujnf!Pvuqvu!Cbve!Sbuf!Tfuujoh!>!:711
!	!	!	!	Dvssfou!Tfsjbm!Ujnf!Pvuqvu!Gpsnbu!Tfuujoh!>!Tztqmfy
!	!	!	!	Dvssfou!Tfsjbm!Ujnf!Pvuqvu!Qbsjuz!Tfuujoh!>!Pee
!	!	!	!	Dvssfou!ONFB!Tfoufodf!2!Tfuujoh!.![EB
!	!	!	!	Dvssfou!ONFB!Tfoufodf!3!Tfuujoh!.!OPOF
!	!	!	!	Dvssfou!ONFB!Tfoufodf!4!Tfuujoh!.!OPOF

 $Vjku"eqo\ o\ cpf"uvctvu"cp"kpvgtcevkxg"ujgnn"uetkrv"vjcv"yknn"cnnqy"vjg"tqqv"wugt"vq"ejcpig"vjg"ugvkpiu"$

 $V j ku^{eq} o o cpf^{cnnq} y u^{v} j g^{w} wyt^{v} q^{w} r f cvg^{v} j g^{eq} p \pm i wt cvkqp^{q} h^{v} j g^{v} Nkpwz^{d} qqvnqc f gt^{c} cvyt^{v} c^{p} g y^{t} qqv^{v} \\ \pm ng^{u} \{ uvg o^{k} o cig^{v} j cu^{d} ggp^{w} rnqc f gf^{v} q^{v} j g^{w} WR I TCFG^{v} tqqv^{v} \pm ng^{u} \{ uvg o^{r} ctvkvkqp.^{l} f gx l tqqvhua3^{e} qh^{v} j g^{v} \\ Vg o rwu^{v} NZ^{v} HNCU J^{r} kum0^{v} Kv^{v} o c^{c} (cnuq^{d} g^{w} ug f^{v} q^{v} tgugv^{v} j g^{r} f ghcwnv^{d} cem^{v} q^{v} j g^{u} HCEVQT [^{t} tqqv^{v} L gg^{u} u (uvg o^{r} ctvkvkqp)^{v} gg^{v} rctvkvkqp)^{v} gg^{v} rctvkvkqp)^{v} \\ vg o^{r} ctvkvkqp0^{v} Grrgpfkz^{v} D^{v} f kz^{v} D^{v} rtcfkpi^{v} j g^{u} Hkt o y ctg^{u} hqt^{v} f gvckng f^{v} kpuvtwevkqpu^{u} hqt^{v} rgthqt o / \\ kpi^{v} j g^{v} wr i tcfg^{v} rtqeg f wtg0^{v} Qpg^{v} cti w o gpv^{v} ku^{v} ceeg rvg f.^{v} y j qug^{v} xcnwg^{v} ku^{v} gsv j gt^{2} qt^{3}.^{ecwukpi} c^{v} tci^{v} q^{v} \\ dg^{u} ug^{v} v j cv^{v} y knn^{v} p f kecvg^{v} q^{v} j g^{u} dqvnqc f gt^{v} y j kej^{v} tqqv^{v} L gg^{v} ku^{v} go^{v} koc i g^{v} j quyn f^{d} g^{v} nqc f g^{v} d \{^{v} f g hcwnv0^{v} \\ Kh^{c} p^{c} cti w o gpv^{v} xcnwg^{v} h^{4} "ku^{v} i kxgp.^{v} j g g^{v} j g^{v} g^{v} g^{v} ge^{v} tgg^{v} f^{v} ghcwnv^{v} tqqv^{v} L gg^{v} u (uvg o^{v} ku^{v} u g o^{v} ku^{v} u g o^{v} ku^{v} u g o^{v} ku^{v} u g o^{v} u g o^{v} w^{v} u g o^{v} u g^{v} u g o^{v} u g v g^{v} u g o^{v} u g v g^{v} u g o^{v} u g v g^{v} u g v g^{v} u g^{v} u g v g^{v} u g^{v} u g v g^{v} u g^{v} u g^{v} u g v g^{v} u g^{v} u g v g^{v} u g^{v} u g v g^{v} u g^{v}$

"	Ugv<"	"	"	"	vqebufsppugmbh!2
"	Vg o rwu"l	NZ"tgurc	lpug<"	"	VQHSBEF!jt!uif!efgbvmu!sppu!gjmf!tztufn/
"	Swgt{<"	"	"	"	vqebufsppugmbh!3
"	Vg o rwu"l	NZ"tgurc	lpug<"	!	VQHSBEF!jt!uif!efgbvmu!sppu!gjmf!tztufn/

 $Vjku"uetkrv"cmqyu"vjg"wugt"vq"writcfg"vjg"EFOC"Uwdu {uvgo"ktoyctg0""Kv"tgswktgu"qpg"ctiwogpv<"vjg"rcvj"vq"vjg"dkpct{"kng"vq"dg"wrnqcfgf"vq"vjg"EFOC"Uwdu {uvgo"kv"kuuwgu"vjg"eqoocpfu"qxgt"vjg"ug/tkcn"rqtv"vq"vjg"EFOC"Uwdu {uvgo"vjg"EFOC"Uwdu {uvgo"vjg"Z/oqfgo"kng"vtcpuhgt."cpf"vjg"fkurnc{u"vjg"tgurqpugu"htqo"vjg"EFOC"Uwdu {uvgo"vjg"eqpuqng0""Yjg"Z/oqfgo"ks"vjg"zfocg"ug/tkc"vjg"ctrgturqpugu"htqo"vjg"EFOC"Uwdu {uvgo"vjg"eqpuqng0""Yjg"z/oqfgo"ks"vjg"zfofg"vjg"eFOC"Uwdu {uvgo"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"zfofg"zfofg"vq"vjg"effocg"ug/tg"vjg"zfofg"vq"vjg"zfofg"vq"vjg"zfofg"vq"vjg"zfofg"vq"vjg"zfofg"vq"vjg"zfofg"vq"vjg"zfofg"vq"vjg"zfofg"zfofg"vq"vjg"zfofg"vq"vjg"zfofg"zfofg"vq"vjg$

Kp"vjg"gzcorng"eqpuqng"qwvrwv"dgnqy."nkpgu" y jkej"dgikp" y kvj"õ///ö"ctg" i gpgtcu O


$$\label{eq:horizondef} \begin{split} &Hqt"ugewtkv{"tgcuqpu"vjg" ygd" rcigu"qp"vjg"Vgorwu"NZ"ujqy"uvcvwu"kphqtocvkqp"qpn{0"" [qw"ecppqv" tgeqpLiwtg"vjg"Vgorwu"NZ"gzegrv"hqt"writcfkpi"Ltoyctg." yjkej"ku"fqpg" ykvj"ugxgtcn"ugewtkv{" ogc/uwtgu"kp" rnceg0""Vq"tgeqpLiwtg"vjg"Vgorwu"NZ" {qw" yknn"pggf"vq"wug"vjg"pgv yqtm"qt"ugtkcn" rqtv"eqo/ocpf"nkpg"kpvgthceg0 \end{split}$$

 $Vq"igv"uvctvgf"ykvj"vjg"ygd"kpvgthceg"ukorn{"rqkpv"{qwt"dtqyugt"vq"vjg"KR"cfftguu"qh"vjg"Vgorwu"NZ" cpf"nqi"kp"ugewtgn{"ykvj"JVVR""Hqt"gzcorng0 "O R O$

VHQO

Ujqyu"vjg"ewttgpv"VHQO"xcnwg0""Ugg"Crrgpfkz"G"/"Vkog"Hkiwtg"qh"Ogtkv"hqt" oqtg"kphqtocvkqp0

U{uvgo "Uvcvwu

Ujqyu"kh"cp{"u{uvgo"hcwnv"ku" rtgugpv0""Kh"c"u{uvgo "hcwnv"gzkuvu." iq"vq"vjg"Hcwnvu"Rcig"vq"ugg" yjkej "hcwnv" kv"ku0

Vjku"rcig"eqpvckpu"kphqtocvkqp"tgncvgf"vq"vjg"EFOC"Tgegkxgt0""Fcvc"Lgnfu"ctg<

Uvcvg

Ujqyu"yjgvjgt"vjg"EFOC"tgegkxgt"ku"nqemgf"qt"pqv0

VHQO

Ujqyu"vjg"ewttgpv"VHQO"xcnwg0""Ugg"Crrgpfkz"G"/"Vkog"Hkiwtg"qh"Ogtkv"hqt" oqtg"kphqtocvkqp0

CIE

Vjku"ku"vjg"cwvqocvke" i ckp"eqpvtqn"*CIE+"FCE"d{vg."2"vq"477." ykvj"nct i gt"pwodgtu"korn{kpi" jkijgt" TH" i ckp0"" Ykvj" i qqf"ukipcn"eqpfkvkqpu"vjku"xcnwg"ku"v{rkecnn{"372"vq"4420"

UPT

 $Vjg"ukipcn/vq/pqkug"*UPT+"tcvkq"ku"cp"kpfkecvqt"qh"vjg"EFOC"ukipcn" swcnkv{0""Vjku"pwodgt" owuv"v{rk/ecn{"dg"itgcvgt"vjcp"407"hqt"vjg"kpuvtwogpv"vq"ccswktg"c"ukipcn0""Dwv"qpeg"kv"jcu"nqemgf."kv"ecp" ockpvckp" nqem"cv"ngxgnu" fqyp"vq"cdqwv"4020$

Htcog"Gttqt"Tcvg

Vjg"pw o dgt"ujqyp"tgrtgugpvu"vjg"u{pe"ejcppgn"htc o g"gttqt"tcvg."20222"vq"30222." y kvj"c"jki jgt"pw o / dgt"k o rn{kpi" o qtg"E{enkecn"Tgfwpfcpe{"Ejgem"*ETE+"hcknwtgu0"" J ki jgt"pw o dgtu" y knn"eqttgncvg" y kvj" nq y gt"uki pcn/vq/pqkug"tcvkqu0

RPQ

V j ku"ku"v j g" rugw f qpqkug" qhhugv. "2" vq" 733" kp" wpkvu" qh" 86" rugw f qpqkug" eq f g" e j k ru0"" Gce j "dcug" uvcvk qp" kp" cp" ctgc" j cu" c" f khhgt gpv" RPQ0

Ejcppgn

 $Vjku"ku"vjg"EFOC"htgswgpe{"ejcppgn"dgkpi"wugf0""Vjgtg"ctg"gkijv"rquukdng"egnnwnct"ejcppgnu"cpf"64" rquukdng"REU"ejcppgnu0""Wpkvu"eqpLiwtgf"hqt"qrgtcvkqp"kp"Lcrcp"jcxg"vyq"rquukdng"egnnwnct"ejcppgnu0$

E j cppgn"Ugv

Vjku"ujqyu"vjg"ewttgpv"EFOC"ejcppgnugv"dgkpi"wugf"d{"vjg"EFOC"tgegkxgt0""Kv"ecp"dg"qpg"qh<"Pqtvj" Cogtkec"Egnnwnct."Mqtgc"Egnnwnct."Pqtvj"Cogtkec"REU."Kpfkc"Egnnwnct."qt"Lcrcp"Egnnwnct0

Ukipen"Hewnv"Ocum

Vjku"Łgnf"ujqyu"vjg"ewttgpv"ugvvkpi"hqt"vjg"Ukipcn"Cncto"Ocum0"" Yjgp"vjg"ukipcn"cncto"ku" ocumgf" kv" y knn"rtgxgpv"c"ukipcn"nquu"hcwnv"htqo"etgcvkpi"cp"cncto"eqpfkvkqp0""Uqog"kpuvcnncvkqpu" oc{"pggf"vq" ocum"vjku"hcwnv" yjgp"qrgtcvkpi"vjg" PVR"ugtxgt"cu"c"Uvtcvwo"4"ugtxgt0""Vq"ejcpig"vjg"ukipcn"cncto" ocum"wug"vjg"tfutjhgmunbtl"eqoocpf0

Vk og"Tghgtgpeg Vjku"hcwnv"kpfkecvgu"vjcv"vjg" oketqrtqeguuqt"tgegkxgf"cp"gttqpgqwu"vk og"kprwv"htq o"vjg"EFOC"Uwd/

Ngcr"Kpfkecvqt"Dkvu

Vjku"Łgnf"ujqyu" y jgvjgt"c"ngcr"ugeqpf"ku" rgpfkpi0""Ngcr"ugeqpfu"qeewt"gxgt{"4/5" {gctu0""Rquukdng" xcnwgu"hqt"vjku"Łgnf"ctg<"PQPG."KPUGTV."FGNGVG"qt"HCWNV0""

- " PQPG<" " Pq"hcwnv"cpf"pq"rgpfkpi"ngcr"ugeqpf0
- KPUGTV"Pq"hcwnv"cpf"c"ngcr"ugeqpf"kpugtvkqp"ku"rgpfkpi0
- FGNGVG" Pq"hcwnv"cpf"c"ngcr"ugeqpf"fgngvkqp"ku"rgpfkpi0
- " HCWNV" " Wpu{pejtqpk|gf"hcwnv"eqpfkvkqp"gzkuvu0

 $Vjg" \pm gnfu" qp"vjku" rcig"ujqy"vjg" uvcvwu" hqt"vjg" qrvkqpcn" RVR1KGGG/37:: "rtqvqqqn0""Kh" {qwt"Vgorwu"NZ" fqgu" pqv" jcxg" RVR"vjgp"vjgtg" y knn" dg" pq" kphqt o cvkqp" qp"vjku" rcig0""Vjg" fcvc" ujqyp" y knn" fgrgpf" qp" y jgvjgt" RVRx3" qt" RVRx4" jcu" dggp" ugngevgf0""Hqt" o qtg" kphqt o cvkqp" qp" RVR" cpf" cp" gzrncpcvkqp" qh" vjg" fcvc" Lgnfu" qp" vjku" rcig" ugg" Crrgpfkz" J"/"Rtgekukqp" Vk og" Rtqvqeqn" RVR+"KGGG/37:: 0$

Vjg"Łtoyctg"uvcvwu"rcig"ujqyu"rctv"pwodgtu"cpf"xgtukqpu"qh"vjg"Nkpwz"Uwdu{uvgo"Łtoyctg"*tqqv" Łng"u{uvgo"cpf"mgtpgn+"cpf"vjg"EFOC"Uwdu{uvgo"Łtoyctg0

$Nkpwz"Uwdu \{uvg\, o\, "Writcfg." EFOC" Uwdu \{uvg\, o\, "Writcfg\,$

 $Vjgug"rcigu"ctg"wugf"hqt"writcfkpi"vjg"Ltoyctg0"" [qw" owuv"dg"nqiigf"kp"cu"õtqqvö"kp"qtfgt"vq" jcxg" ceeguu"vq"vjgug"rcigu0""Vjg"ncvguv"tgngcugf"xgtukqpu"qh"Vg orwu"NZ"Ltoyctg"ctg"htgn{"cxckncdng"qp" vjg"GpfTwp" ygdukvg0""Hqt" fgvckngf"kphqt ocvkqp"qp" jqy"vq" rgthqt o"vjg"writcfg"gkvjgt"xkc"vjg"pgvyqtm" rqtv."yjg"ugtkcn" rqtv."qt"vjg" JVVR"kpvgthceg"ugg"Crrgpfkz"D"/"Writcfkpi"Vjg"Hkt oyctg0""Qpn{"vjg" Nkpwz"Uwdu {uvg o "tqqv"Lng"u {uvg o "sTHU+"cpf"vjg"EFOC"Uwdu {uvg o "ecp"dg"writcfgpi"vjg"Hkt oyctg."Rgt/hqt okpi"vjg"Nkpwz"Mgtpgn"Writcfg0$

Tgdqqv

Vjku"rcig" ykm"cnnqy" {qw"vq"rgthqto"c"uqhvyctg"tgdqqv"qh"dqvj"vjg"Nkpwz"Uwdu{uvgo"cpf"vjg"EFOC" Uwdu{uvgo0""Vjku"ku"pqtocm{"wugf"chvgt"c"Łtoyctg"writcfg"dwv"ecp"dg"fqpg"cp{vkog"{qw"ykuj"vq" tgugv"vjg"Vgorwu"NZ0

 $Vq"fkucdng" J VVR" \{qw"pggf"vq"gfkv"c"u \{uvg o "uvctv/wr"uetkrv"ecngf" | gvelte0flte0nqecn0"V j ku"uetkrv"uvctvu" ugxgtcn" fcg o qpu0"" [qw"ecp"gkvjgt"tg o qxg"vjg"nkpg"vjcv"nkuvu" J VVR"qt" {qw"ecp"rnceg"c"%"ejctcevgt"cv"vjg" dgikppkpi "qh"vjg"nkpg"uq"vjcv"kv" y knn"pqv"dg"gzgewvgf0""*C"xgt {"eq o rcev"gfkvqt"ku"cxckncdng"qp"vjg"u {u/vg o "hqt"vjku" rwtrqug<"!feju0""Kh" {qw"uvctv"feju" y kvjqwv"ikxkpi "kv"c"Lng"pc o g"vq"qrgp."kv" y knn" fkurnc {"kvu" jgnr"uetggp."ujqykpi "vjg"u {u/vg o "hqt"vjku" rwtrqugf"mg {uvtqmgu0+$

After editing, you must copy it to thedirectory and reboot the system.It is very important to retain the access mode for the file, so be sure to use ! dq ! . q when performing the
copy. During the boot process, the files contained in the
directory are copied to the work-
ingdirectory on the system RAM disk. In this way the factory defaults are overwritten.

∉#

kp0vgnpgvf<""3;4038:0304."3;4038:0305 uujf<""3;4038:0304."3;4038:0305 uporf<""3;4038:0304."3;4008:0305

 $Vjku"uk o rng"ujgm"uetkrv"jcpfngu"vjg"pggfu"qh" o quv"wugtu."jqygxgt"vjg"u{pvcz"qh"vjgug"vyq"Łngu"uwr/rqtvu"gncdqtcvg"eqpŁiwtcvkqp"rquukdknkvkgu" y jkej"ctg"dg{qpf"vjg"ecrcdknkvgu"qh"vjku"uk o rng"ujgm"uetkrv0"" Cfxcpegf"wugtu" y jq"pggf"vjgug"ecrcdknkvkgu" y km"pggf"vq"gfkv"vjgug"vyq"Łngu" fktgevn{"cpf"vjgp"eqr{"vjgo"vq"vjg"ldqqvlgve" fktgevqt{0""*Ugg"Wukp i "Gfkv"cdqxg0+""Dg"ectghwn"vq" o ckpvckp"vjg"rtqrgt"qypgtujkr" cpf"ceeguu"rgt o kuukqpu"d{"wukp i "dq!.q" y jgp"eqr{kpi"vjg"Lngu0$

Vq"eqpvtqn"ceeguu"xkc" J VVR."vjg"wugt" o wuv"gfkv"vjg"*lgvelcrcejgljvvrf0eqph*"Łng"cpf"cff"vjg"gswkxcngpv" fgp{"hqnnqygf"d{"cnnqy"fktgevkxgu0""Hqt"gzcorng."vjg"fghcwnv"Łng"eqpvckpu"vjgug"nkpgu<

%"Eqpvtqnu" y jq"ecp" i gv"uvwhh"htq o "vjku"ugtxgt0

- %
- " Qtfgt"cnnqy.fgp{
- " Cnnqy "htqo"cnn
- >1Fktgevqt{@

 $Vq"tguvtkev"ceeguu"vq"c"urgek\ee"jquv"y\kvj"\ceeguu"zzv\ceeguu"vq"c"urgek\ee"jquv"y\kvj\ceeguu"zzv\ceeguu"zv\ceeguu$

%"Eqpvtqnu" y jq"ecp" i gv"uvwhh"htq o "v j ku"ugtxgt0

- %
- Qtfgt"cnnqy.fgp{
- " Fgp{"htqo"cm
- " Cnnqy"htqo"zzz0zzz0zzz0zzz
- >1Fktgevqt{@

[qw" oc{"eq orngvgn{"fkucdng"cp{"qh"vjg"hqnnqykpi"rtqvqeqnu<""Vgnpgv."VKOG."FC[VKOG."UUJ."UPOR" cpf" JVVR)""

Vq"fkucdng"Vgnpgv."VKOG"cpf"FC[VKOG"wug"vjg"jofuedpogjh"eq o ocpf0""jofuedpogjh" oqfk/ Łgu"vjg"*lgvelkpgvf0eqph*"Łng" y jkej "ku"tgcf"d{"jofue"vq"uvctv/wr"xctkqwu"rtqvqeqn"ugtxgt"fcg oqpu" y jgp" tgswguvu"htq o "tg o qvg" jquvu"ctg"tgegkxgf0""Ewttgpvn{."vj tgg"ugtxgtu"ctg"eqpŁ i wtcdng"xkc" jofuedpo. gjh<""VKOG"cpf"FC[VKOG." y jqug"fcg oqpu"ctg"eqpvckpgf" y kvjkp"vjg" jofue"fcg oqp"kvugnh."cpf" jo/ufmofue0""Cp{"qpg"qt"cm"qh"vjgug" oc{"dg"gpcdngf"qt"fkucdngf"hqt"uvctv/wr0

 $Vq"fkucdng"UPOR"cpf" J VVR."gfkv"c"u {uvgo"uvctv/wr"uetkrv"ecnngf"$ *lgvelte0flte0nqecn* $0"V j ku"uetkrv"uvctvu" ugxgtcn"qh"v j g" fcg o qpu"twppkp i "qp"v j g"u {uvg o 0"" [qw"u j qwnf"hqnnq y "v j g"kpuvtwevkqpu"eqpvckpg f"kp"eq o / o gpvu"kp"v j g"Lng"hqt" fkucdnkp i "v j g"tonqelcpf"iuuqe" fcg o qpu0""Rncekp i "c"%"e j ctcevgt"cv"v j g"dg i kppkp i "qh"c"nkpg" o cmgu"kv"c"eq o o gpv"hkp"uq"v j cv"kv" y knn"pqv"dg"gzgewvg f0""*Ugg"$ *Wukp i "Gfkv*"cdqxg0+

 $Vq"fkucdng"UUJ."gfkv"c"u{uvgo"uvctv/wr"uetkrv"ecnngf"$ *lgvelte0flte0kpgv40* $"Vjku"uetkrv"uvctvu"ugxgtcn"qh"vjg" fcg o qpu"twppkpi"qp"vjg"u{uvg o 0"" [qw"ujqwnf"hqnnq y "vjg"kpuvtwevkqpu"eqpvckpgf"kp"eq o o gpvu"kp"vjg"Łng" hqt"fkucdnkpi"vjg"$ **ttie**"fcg o qp0""Rncekpi"c"%"ejctcevgt"cv"vjg"dgikppkpi"qh"c"nkpg" o cmgu"kv"c"eq o o gpv" nkpg"uq"vjcv"kv" y knn"pqv"dg"gzgewvgf0""*Ugg"

Vjg"JVVR"ugtxgt"kp"vjg"Vgorwu"NZ"ku"dwknv"htqo"vjg"uvcpfctf"Crcejgl305055"fkuvtkdwvkqp"htqo
interval to the set of
"jwr<ljwrf0crcejg0qti"

 $J VVR"cpf"UUN"wug"vyq"Łngu"hqt"vjg"fghcwnv"eqpŁiwtcvkqp"nqecvgf"kp"lgvelcrcejg0"Vjgug"ctg"jvvrf0eqph" cpf"uun0eqph0"Cfxcpegf"wugtu" yjq"pggf"vq" oqfkh {"vjg"fghcwnv"eqpŁiwtcvkqp" ykm"pggf"vq"gfkv"vjgug"vyq" Łngu"cpf"eqr{"vjgo"vq"jg"ldqqvlgvelcrcejg"fktgevqt {0"*Ugg"Wukpi"Gfkv"cdqxg0+$

 $D{ "fghcwnv."vjg"Crcejg"ugtxgt"eqpLiwtcvkqp"Lng"jvvrf0eqph"hqt"jvvrf"ku"hcevqt{/eqpLiwtgf0""Kv"eqpvckpu" vjg"eqpLiwtcvkqp"fktgevkxgu"vjcv"ikxg"vjg"ugtxgt"kvu"kpuvtwevkqpu0""Cnvjqwij"pqv"tgswktgf."vjg"fktgevkxgu" oc{"dg"ejcpigf"d{"gfkvkpi"$ *lgvelcrcejgljvvrf0eqph* $."cpf"vjgp"eqr{kpi"kv"q"$ *ldqqvlgvelcrcejg* $0""Fq"pqv" cvvg o rv"vq"ejcpig"vjg"fktgevkxgu"wpnguu"{qw"jcxg"c"tgcn"pggf"vq"fq"uq0$

Cp"gzegnngpv"dqqm" y jkej "fguetkdgu"qrgtcvkqp"cpf"eqpŁi wtcvkqp"qh"v jg"xctkqwu" J VVR" fktgevkxgu"cpf" UUN"eqpŁi wtcvkqp"ku<"

" Rtqhguukqpcn"Crcejg."Yckpytkijv."Ytqz"Rtguu."3;;;0"

Vq"fkucdng"JVVR."ugg"Fkucdng"UPOR"cpf"JVVR"cdqxg0

" "





 $40""kh" \{qwt"Vg o rwu"NZ"fqgu"pqv"jcxg"ceeguu"vq"vjg"kpvgtpgv." \{qw" o wuv"Łtuv"fq y pnqc f"vjg"cr rtqrtkcvg" Lngu"htq o "vjg"gpftwpvgejpqnq i kgu0eq o " y gdukvg"vq"vjg"eq o rwvgt"vjcv" {qw" y knn"dg"wukp i "ncvgt"vq"ceeguu" vjg"Vg o rwu"NZ"xkc"kvu" J VVR"kpvgthceg0""Wug"vjg"nkpm"ujq y p"cdqxg"vq" i gv"vjg"Lngu0""Chvgt"ucxkp i "vjg" Lngu."wug"vjg"Vg o rwu"NZ" J VVR"kpvgthceg1"g"ugngev"vjg"rtgxkqwun {"ucxgf"Lngu"hqt"wrnqcf"vjg"Vg o rwu"NZ" J VVR"kpvgthceg1"g"ugngev"vjg"FOC""Uwdu {uvg o 0""Vjgp"hqnnq y "vjg"tg o ckp/ kp i "rtq o rvu"htq o "vjg" J VVR"kpvgthceg1"q"eq o rngvg"vjg"wr i tcfgu0"""* [qw" y knn"pggf"vq"cwvjgpvkecvg"vjg" tqqv"wugt"pc o g"cpf"rcuu y qtf0+$



Vq"rgthqto"vjku"writcfg."nqi"kp"cu"vjg"*tqqv*"wugt"vq"vjg"Vgorwu"NZ"wukpi"gkvjgt"vjg"nqecn"eqpuqng"ugtkcn" KlQ"rqtv."**ufmofu**"qt"**tti**"cpf"rgthqto"vjgug"qrgtcvkqpu<

Ejcpig"vjg" yqtmkpi" fktgevqt {"vq"vjg" lvor" fktgevqt {<

de!0unq

Kh" {qw"ctg"wukpi"guq"vq" rgthqt o "vjg"wr itcfg."vtcpuhgt"vjg" rtgxkqwun {"fqypnqcfgf"Eng"wukpi"dkpct {" vtcpuhgt" oqfg"htqo"vjg"tgoqvg" jquv"vq"vjg" yqtmkpi" fktgevqt {."*lvor*0""Vjg"EFOC"Uwdu {uvgo" kocig" ykm"dg"pcogf" ykvj "vjg"uqhvyctg" rctv"pwodgt"cpf" xgtukqp"nkmg<"8232/2242/222a50230dkp0"" Y jgp"hqn/ nqykpi "vjg"kpuvtwevkqpu"dgnqy."uwduvkwvg"vjg"pcog"qh"vjg" cevwcn"EFOC"Uwdu {uvgo" kocig" vjcv" {qw"ctg" kpuvcnnkpi "hqt"8232/2242/222a50230dkp<

guq!sfnpuf`iptu		rgthqto"hvr"nqikp"qp"tgoqvg"jquvc
cjo" " "	"	}ugv"vtcpuhgt"oqfg"vq"dkpct{;
hfu!7121.1131.111`4/12/cjo		}vtcpuhgt"vjg"ıng;
rvjuÁÁÁÁÁÁÁÁÁÁÁÁÁÁ	Á	enqug"vjg"hvr"uguukqp"chvgt"vjg"vtcpuhgtÁc

 $\begin{aligned} & \texttt{Kh}^{q}(\texttt{qw}^{c}\texttt{tg}^{w}\texttt{ukpi}^{t}\texttt{tti.}^{q}(\texttt{qw}^{o}\texttt{c}^{q}\texttt{rgp}^{c}\texttt{cpq}^{v}\texttt{jg}^{t}\texttt{eq} \circ \texttt{o}\texttt{cpf}^{u}\texttt{y}\texttt{kpfqy}^{u}\texttt{qp}^{v}\texttt{jg}^{t}\texttt{tg} \circ \texttt{qvg}^{u}\texttt{eq} \circ \texttt{rwygt}^{c}\texttt{cpf}^{u}\texttt{g}\texttt{ewtgn}^{u}(\texttt{rupuhgt}^{v}\texttt{jg}^{u}\texttt{EFOC}^{u}\texttt{Uwdu}^{u}\texttt{vg} \circ \texttt{kocig}^{v}\texttt{vjg}^{u}\texttt{jg}^{u}\texttt{vg}^{v}\texttt{r}^{u}\texttt{f}^{u}\texttt{g}^{u}\texttt{u}\texttt{kpi}^{u}\texttt{tq}^{u}\texttt{tq} \circ \texttt{vjg}^{u}\texttt{tg} \circ \texttt{qvg}^{u}\texttt{eq} \circ \texttt{rwygt}^{u}^{u}\texttt{C}^{u} \\ & \texttt{eq} \circ \texttt{o} \texttt{cpf}^{u}\texttt{h}\texttt{ku}^{u}\texttt{eq}^{u}\texttt{h}^{u}\texttt{d}^{u}\texttt{u}\texttt{g}^{u}\texttt{u}\texttt{g}^{u} \end{aligned}$

tdq! q!7121.1131.111`4/12/cjo!sppuAdouq/zpvs/epnbjo;0unq

Pqy "kuuwg"vjg"hqnnqykpi "eqoocpf"vq"vjg"Vgorwu"NZ "eqpuqng"vq"kpkvkcvg"vjg"wrnqcf<

vqhsbefdenb!0unq07121.1131.111`4/12/cjo

 $Vjku"eq o ocpf"ku"c"uetkrv"vjcv"rgthqt o u"vjg"Lng"vtcpuhgt"vq"vjg"EFOC"Uwdu {uvg o 0""Kv"Ltuv"vgnnu"vjg" EFOC"Uwdu {uvg o 0"vg" eFOC"Uwdu {uvg o 0"$

...Xifo!zpv!tff!uif!aDa!dibsbdufs-!iju!=foufs?!up!cfhjo!uif!vqmpbe/

Vjgp"kv"gejqu"vjg"ugtkcn"rqtv"ejctcevgtu"ugpv"d{"vjg"EFOC"Uwdu{uvgo"vq"vjg"eqpuqng0"" [qw"ujqwnf" pgzv"ugg"vjku" oguucig"htqo"vjg"EFOC"Uwdu{uvgo<

Xbjujoh!gps!epxompbe!vtjoh!YNPEFN!239!ps!YNPEFN!2L!)cpui!xjui!DSD*/ Dpouspm!Y!xjmm!bcpsu!epxompbe/

Chvgt"cdqwv"5"ugeqpfu."{qw"ujqwnf"ugg"c"ecrkvcn":Eø"ejctcevgt"crrgct0""Yjgp"{qw"fq."jkv"vjg">gpvgt@" mg{0""Pqy"vjg"uetkrv" ykn"kpkvkcvg"vjg"ZOQFGO"Lng"vtcpuhgt"cpf"fkurnc{"vjku" oguucig"vq"vjg"eqpuqng<

...Tubsujoh!gjmf!vqmpbe-!tipvme!ublf!bcpvu!:1!tfdpoet///

Chvgt"cdqwv"qpg" o kpwvg" {qw"ujqwnf"ugg"vjku" o guucig"htq o "vjg"uetkrv<

0tcjo0vqhsbefdenb;!mjof!37;!38729!Ufsnjobufe!!!!!db

i!deve

vtcpuhgt"jcu"eqorngvgf."cpf"vjcv"kvu"uvctv/wr"oguucigu"ujqwnf"crrgct0""Hktuv"vjg"dqqvnqcfgt"oguucig" ykm"crrgct<

Ufnqvt!Cppumpbefs!7121.1161.111!w!2/11!.!Nbz!39!3115!28;42;16

 $\label{eq:constraint} \verb"kp"cdqwv"vgp"ugeqpfu."vjg"EFOC"Uwdu{uvgo"crnkecvkqp"uvctv/wr"oguucigu"ujqwnf"crrgct
$

GX!7121.1131.111!w!2/11!.!Bvh!29!3115!21;58;52 GQHB!7131.1116.111!w!1313

!

 $Vjg" \pm to yctg" xgtukqp" ujqwnf" o cvej" vjcv" qh"vjg" dkpct {" \pm ng" vjcv" {qw" wrnqcfgf0"" Cv"vjku" rqkpv." vjg" vq. hsbefdenb" uetkrv" vgt o kpcvgu" kvu" gzgewvkqp." cpf" {qw" y km" cickp" jcxg" vjg" uvcpfctf" Vg o rwu" NZ" eqpuqng" rtq o rv0$

Chvgt"cdqwv"qpg" o kpwvg."{qw"ujqwnf" swgt {"vjg"EFOC"Lt o y ctg"xgtukqp" wukpi "vjg"eq o o cpf <

denbwfstjpo

Vjg"writcfgf"xgtukqp"kphqtocvkqp"ujqwnf"dg"fkurnc{gf0

Ujqwnf" {qw" jcxg" fkhŁewnvkgu" y kvj"vjg"wr i tcfg" fwg"vq"c"eqttwr v"Łng."rqygt"hcknwtg" fwtkp i "wrnqcf."qt" qvjgt"ceekfgpv."fq"pqv"dg"cnct og f0""Gxgp"vjqwij" {qw" oc {"jcxg"nquv"vjg"gzkuvkpi"cr rnkecvkqp" rtqitco." vjg"EFOC"Uwdu {uvgo "dqqvnqcfgt" rtqitco" y knn"tg ockp"kpvcev0""Qp"dqqv"wr."kv" y knn"e jgem"vq"ugg"kh"c" xcnkf"cr rnkecvkqp" rtqitco "ku"kp"vjg"HNCU J" og oqt {0""Kh"vjgtg"ku"pqv."kv" y knn"k o og fkcvgn {"iq"kpvq"vjg" ÷ y ckvkpi "hqt" fq y pnqcfø" oqfg0"" [qw" oc {"xgtkh {"vjku"d {"kuuwkpi "vjku"eq o ocpf<

dbu!=!0efw0bsn`vtfs

[qw"ujqwnf"pqy"ugg"vjg"÷Eø"ejctcevgt"dgkpi"tgegkxgf"gxgt{"vjtgg"ugeqpfu0""Vjku"ku"vjg"ejctcevgt"vjcv" vjg"EFOC"Uwdu{uvgo"dqqvnqcfgt"ugpfu"vq"kpfkecvg"vq"vjg"ZOQFGO"wvknkv{"vjcv"kv"ku" y cvkpi"hqt"c" fqypnqcf0"" [qw" oc{"pqy"tgvt{"vjg"wrnqcf"rtqegfwtg."cuuw okpi"vjcv"{qw"jcxg"eqttgevgf"cp{"qtkikpcn" rtqdngo" y kvj"vjg"dkpct{"Lng0""Hktuv"mknn"vjg"dbu"eq o ocpf"d{"v{rkpi"EVTN/E0"" [qw"ujqwnf"ugg"c"eq o/ ocpf"rtqorv0"" Pqy "kuuwg"vjku"eq o ocpf"vq"tg/vtcpuhgt"vjg"dkpct{"Lng<

vqhsbefdenb!0unq07121.1131.111~4/12/cjo

Uq o gvk o gu"c"wugt" y km"cvvg o rv"vq" fq y pnqcf"vjg" y tqp i "Łng"vq"vjg"EFOC"Uwdu {uvg o 0"" Y jgp"vjku" jcr/ rgpu"vjg"tgeqxgt {" o gvjqf"cdqxg" y km"pqv" y qtm0""Chvgt"kuuwkp i "vjg"dbu"eq o o cpf"cdqxg" {qw" y km"pqv" ugg"c"ugtkgu"qh"õEö"ejctcevgtu."dwv"kpuvgcf" {qw" y km"ugg"vjg"dqvnqcfgt" o guucig"dgkp i "qwvrwv"gxgt {"hg y" ugeqpfu0""Kp"vjku"ecug" {qw"pggf"vq"wug"c" fkhhgtgpv"tgeqxgt {" rtqegfwtg0

Hktuv" o cmg"uwtg"vjg"cdqxg"**dbu**"eq o o cpf"ku"mkmgf"d{"v{rkpi"EVTN/E0""Vjgp"gpvgt"c"pgy"**dbu**"eq o/ocpf"cu<

dbu!=!0efw0bsn`vtfs!'

[qw"ujqwnf"cickp"dg"uggkpi"vjg"dqqvnqcfgt" o guucig"gxgt{"hgy"ugeqpfu<

Ufnqvt!Cppumpbefs!7121.1161.111!w!2/11!.!Nbz!39!3115!28;42;16

 $Rngcug"v\{rg"vjg"hqnnqykpi"eqoocpf"dwv"fq"pqv"rtguu"gpvgt < \label{eq:rg}$

VGORWUNZWPKUQP/OKD

Y jkej "ku"nqecvgf"qp" {qwt"Vg o rwu"NZ"kp"vjku"CUEKK"Łng<

lwutlnqecnlujctgluporlokdulVGORWUNZWPKUQP/OKD0vzv"

Kp"cffkvkqp"vq"c"eqorngvg"ugv"qh"PVR"cpf"EFOC"uvcvwu"qdlgevu."vjg"OKD"fgŁpgu"hqwt"UOKx4"pqvkŁec/vkqp"qdlgevu<

- ∉# PVR"Ngcr"Kpfkecvqt"Dkvu"uvcvwu"ejcpig
- ∉# PVR"Uvtcvwo"ejcpig
- ∉# EFOC"Hcwnv"Uvcvwu"ejcpig
- ∉# EFOC"Vkog"Hkiwtg"qh"Ogtkv"ejcpig

 $Vjg"UPOR"fcgoqp."uporf"ku"uvctvgf"htqo"vjg"lgvelte0flte0nqecn"u{uvgo"uvctv/wr"uetkrv"ykvj"vjku"nkpg
$

uporf"/o"õ&OKD EFOC"V V O K vj"

You must kill the tonge process prior to editing, . Otherwise, the secret key creation may not complete properly. Issue the command <code>!qt!.f</code> to have the operating system display the list of running processes. Look for the PID of the tonge process and issue the kill command to stop it. For example, if the PID listed for the tonge process is 53, then you would issue this command: <code>ljmm!64</code>. You can verify that the process was terminated by re-issuing the <code>!qt!.f</code> command.

Chvgt"tgdqqvkpi."vjg"cigpv"ykm"tgcf"vjg"ldqqvlpgv/uporluporfleqph



Cpqvjgt" yc{"vq"igv"vjg"ngcr"ugeqpf"kphqt o cvkqp"ku"vq"iq"vq"vjg"Kpvgtpcvkqpcn"Gctvj"Tqvcvkqp"Ugtxkeg" *KGTU+" ygdukvg0""Kh"c"ngcr"ugeqpf"ku" rgpfkpi"kv" yknn"dg" rquvgf"d{"vjg"KGTU"crrtqzk o cvgn{"ukz" o qpvju" kp"cfxcpeg"qh""kpugtvkqp0""Vjku"kphqt o cvkqp"ku"cxckncdng"kp"vjg"ncvguv"Dwnngvkp"E"cv"vjg"*KGTU+" ygdukvg<

j vv r<11 y y y 0kgtu0qt i

 $Ngcr"ugeqpfu"ctg"kpugtvgf"htq o "vk o g/vq/vk o g"kp"qtfgt"vq"mggr"WVE." y j kej "ku" fgtkxgf"htq o "cvq o ke" vk o g"*VCK+."kp"citgg o gpv" y kvj "vjg"Gctv j øu"tqvcvkqp"tcvg0""Tgncvkxg"vq"VCK."vjg"Gctv j øu"tqvcvkqp"tcvg"ku" unq y kp i "fq y p0""V j ku" o gcpu"vjcv"WVE" o wuv"dg"tgvctfgf"rgtkqfkecm{"kp"qtfgt"vq" o ckpvckp"citgg o gpv" dgv y ggp"WVE"cpf"vjg"crrctgpv"fc{ngp i vj0""Kh"vjku" y gtg"pqv"fqpg."gxgpvwcm{"WVE" y qwnf"ftkhv"qwv/qh/u {pe" y kvj "Gctv j øu" fc{"cpf" o cp{"cuvtqp q o kecn"cpf"pcxki cvkqpcn"rtqdng o u" y qwnf"gpuwg0$

Vjg"Kpvgtpcvkqpcn"Gctvj"Tqvcvkqp"Ugtxkeg"*KGTU+"ku"vjg"qticpk|cvkqp"tgurqpukdng"hqt" o gcuwtkpi"vjg" tgncvkqpujkr"dgv y ggp"WVE"cpf"vjg"tqvcvkqp"tcvg"qh"vjg"Gctvjt"vq" o ckpvc" n" tfgt"v O
$Vjg"hqt o cv"qh"vjg"Vtwgvk o g"uvtkp i "ku"kfgpvkecn"vq"vjg"U{urngz"hqt o cv""Vjg"qpn{"fkhhgtgpeg"dgv y ggp" vjg"vyq"ku"vjcv"vjg"U{urngz"hqt o cv"cn y c {u"wugu"WVE"vk o g0""Vjg"vk o g"eqpvckpgf"kp"vjg"Vtwgvk o g"hqt o cv" fgrgpfu"qp"vjg"vk o g" o q fg"qh"vjg"Vg o rwu"NZ0""*Ugg"Vk o g" O q fg"kp"$ *Ejcrvgt"7"/"Htqpv/Rcpgn"Mg{/rcf"cpf"Fkurncf*"cpf""houqujnfnpefdpogjh"kp"*Ejcrvgt"8"/"Eqpvtqn* $"cpf"Uvcvwu"Eq o o cpfu0+""Hqt" gzc o rng."kh" {qw" y cpv"cp"qwvrwv" y kvj"vjku"uvtkp i "hqt o cv"vjcv"ugu"Nqecn"Vk o g."vjgp"ugngev"vjg"Vtwgvk o g" hqt o cv0$

Vjg"vk og"eqpvckpgf"kp"vjku"uvtkpi"fgrgpfu"qp"vjg"vk og" oqfg"qh"vjg"Vg orwu"NZ0""Hqt"gzc orng."kh"{qw" y cpv"vjg"vk og"kp"vjku"uvtkpi"vq"dg"WVE."vjgp"ugv""vjg"vk og" oqfg"qh"vjg"Vg orwu"NZ"vq"WVE0""*Ugg" Vk og" Oqfg"kp"*Ejcrvgt"7"/"Htqpv/Rcpgn"Mg{rcf"cpf"Fkurnc{*"cpf"*"*houqujnfnpefdpogjh"kp"*Ejcr/ vgt"8"/"Eqpvtqn*"*cpf"Uvcvwu"Eq o ocpfu*0+""Vjg"hqmqykpi"uvtkpi"ku"ugpv"qpeg"gcej"ugeqpf<

" V" [[["FFF" J J <OO<UU" | \ \ "o>ET@>NH@

V" "	ku"vjg"Vkog"Hkiwtg"qh"Ogtkv"*VHQO+"ejctcevgt"fguetkdgf"kp" <i>Crrgpfkz"G"/"VHQO</i> Ø
" "	Vjku"ku"vjg"õqp/vkogö"ejctcevgt0
[[["	ku"vjg"{gct
FFF"	ku"vjg"fc{/qh/{gct}
<" "	ku"vjg"eqnqp"ejctcevgt"*2z5C+
J J "	ku"vjg"jqwt"qh"vjg"fc{
00"	ku"vjg" o kpwvg"qh"vjg" jqwt
UU"	ku"vjg"ugeqpf"qh"vjg" o kpwvg

Vjg"GpfTwpZ"hqt o cv"ku"kfgpvkecn"vq"vjg"GpfTwp"hqt o cv" y kvj"vjg"cffkvkqp"qh"v yq"Lgnfu"/"vjg"ewt/tgpv"ngcr"ugeqpf"ugvvkpiu"cpf"vjg"hwvwtg"ngcr"ugeqpf"ugvvkpiu"'Vjg"hqnnq y kpi"uvtkpi"ku"ugpv"qpeg"gcej"ugeqpf<

" V" [[[["FFF" J J <O O <UU" | $\ \ e^{BE}$ "HH>ET@>NH@

V"ku"vjg"Vkog"Hkiwtg"qh"Ogtkv"*VHQO+"ejctcevgt"fguetkdgf"kp"Crrgpfkz"G"/"VHQO"Vjku"ku"vjg"õqp/vkvj"qh"ngnik

PGPC: >ET@>NH@S``[[[[`FFF`JJ<OO<UU`F-\\>ET@>NH@

S" "

d+" [qw" o wuv"ecwug"cp{" y qtm"vjcv"{qw" fkuvtkdwvg"qt" rwdnkuj."vjcv"kp" y jqng"qt"kp" rctv"eqpvckpu"qt"ku" fg/ tkxgf"htq o "vjg"Rtqitc o "qt"cp{" rctv"vjgtgqh."vq"dg"nkegpugf"cu"c" y jqng"cv"pq"ejctig"vq"cnn"vjktf" rctvkgu" wpfgt"vjg"vgt o u"qh"vjku"Nkegpug0"

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$$\label{eq:constraint} \begin{split} & \texttt{Kp}^{\texttt{cffkvkqp."}} \ o \ \texttt{gtg}^{\texttt{ci}} \ i \ \texttt{tgicvkqp}^{\texttt{cp}} \ \texttt{qp}^{\texttt{vjg}} \ \texttt{gtg}^{\texttt{ci}} \ \texttt{gtg}^{\texttt{vjg}} \ \texttt{Rtqitco}^{\texttt{vjg}} \ \texttt{Rtqitco}^{\texttt{vjg}} \ \texttt{Rtqitco}^{\texttt{vjg}} \ \texttt{tco}^{\texttt{vjg}} \ \texttt{stgicv}^{\texttt{vjg}} \ \texttt{stg$$

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c+"Ceeq o rcp{"kv" y kvj "v j g"eq o rngvg"eqttgurqpfkpi" o cej kpg/tgcfcdng"uqwteg"eqfg." y j kej " o wuv"dg" fkuvtkdwvgf"wpfgt"vjg"vgt o u"qh"Ugevkqpu"3"cpf"4"cdqxg"qp"c" o gfkw o "ewuvq o ctkn{"wugf"hqt"uqhv y ctg" kpvgtej cp i g="qt."

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4	Tgegkxg"Fcvc"*TZ+
5	Vtcpuokv"Fcvc"*VZ+
6	Fcvc"Vgtokpcn"Tgcf{"*FVT+
7	I tqwpf
8	Fcvc"Ugv"Tgcf{"*FUT+
9	Tgswguv"Vq"Ugpf"*TVU+
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