$\label{lem:condition} $$ Rtkpekrng"6/; +"Etkvgtkc"hqt"vjg"Kpfgrgpfgpeg"qh"Kpfgrgpfgpv"Qwvukfg"Fktgevqtu Rngcug" ugg" vjg" \~oEtkvgtkc" hqt" vjg" Kpfgrgpfgpeg" qh" Qwvukfg$ 

 $Oqtgqxgt."\ y\ g"\ gpeqwtcig"\ cnn"\ Fktgevqtu"\ cpf"\ Cw\ fkv"\ (\ "Uwrgtxkuqt\{"Dqctf''\ Og\ odgtu''\ vq''\ k\ o\ rtqxg''\ vj\ g\ o\ ugnxgu''\ cu''\ pgeguuct\{"hqt"vcmkpi"qp"vj\ gkt"tqng"cpf"rgthqt\ o\ kpi"vj\ gkt"\ fwvkgu''\ y\ j\ kng"kp"qhhkeg0"\ Y\ g"cnuq"rtqxkfglcttcpig"vtckpkpi''$ 

 $Fktgevqtu0"Qwv"qh"vgp"*32+"Fktgevqtu."vyq"*4+"qh"vjgo"ctg"Qwvukfg"Fktgevqtu="vjg"Fktgevqtu"ctg"eqortkugf"\\qh"pkpg"*;+"ocngu"cpf"qpg"*3+"hgocng0"Vjg"Fktgevqtuø"vgtou"qh"qhhkeg"ku"qpg"*3+"{gct"kp"qtfgt"vq"enctkh{"ocpcigogpv"tgurqpukdknkv{"hqt"gcej"{gct0}}}$ 

50 Ogcuwtgu vq Gpuwtg Fwg Tgurgev hqt Uvcmgjqnfgtu

 $40"U \{uvgou"eqpegtpkpi"uvqtcig"cpf"ocpcigogpv"qh"kphqtocvkqp"rgtvckpkpivq"vjg"gzgewvkqp"qh"fwvkgu"d \{"vjg"Fktgevqtu$ 

 $3+ ""Vjg"Fktgevqtu." rwtuwcpv" vq" vjg"fqewogpv"ocpcigogpv"twngu." rtqrgtn \{ "uvqtg"cpf"ocpcig vjg"hqnnqykpi"fqewogpvu"*kpenwfkpi"gngevtqpke"tgeqtfu="vjg"ucog"crrnkgu$ 

5+	$\label{thm:composition} Vjg"Tkum"Ocpcigogpv"Ugevkqp"kfgpvkhkgukorqtvcpv"tkumu"vq"vjg"Itqwr"cpf"rgtkqfkecnn\{"jqnfuoggvkpiu\}$

 $tgrqtvu\ vjg"ucog"vq"vjg"Eqorcp\{\emptyset u"Eqornkcpeg"Fgrctvogpv"rwtuwcpv"vq"vjg"kpvgtpcn"twngu."gve0."\\ kpenwfkpi"vjg\ Itqwr\emptyset u"Cevkqp"Uvcpfctfu0"Vjg"Eqtrqtcvg"Q$ 

 $enck\ o\ u0"\ Vjg"\ I\ tqwrou\ Cevkqp"\ Uvcpfctfu"\ uvkrwncvg"\ jqy"\ vq"\ fgcn"\ ykvj"\ cpvk/uqekcn"\ hqtegu\ kp"\ vjg"\ Cevkqp"\ Uvcpfctfu."\ cpf"\ vjg"\ Eq\ o\ rcp{"\ gpuwtgu"\ vjcv"\ jqy"\ vq"\ fgcn"\ ykvj"\ cpvk}$