

k 'u '# 'h

Uwf gpv'J cpf dqqm

Crt kd4247

## Vcdrg'qh'Eqpygpw

## KKpvt qf wevkqp'vq'Tcf kcvkqp'Vj gtcr{

- C0' O kuulqp''Ucvgo gpv/4
- D0' Rtqi tco 'Rj krquqr j {/4
- E0 Rtqi tco 'Qdlgevkxgu/5
- F0' Rtqi tco 'I qcn/5

## NO' RGTUQP CN'DGJ CXKQT'GZRGEVCVKQPU/6

- C0' Ftguu'Eqfg/7
- D0' Rtqhguukqpcn'Dgj cxkqtu/7
- E0' Rctmkpi "/8

#### HHO' VGEJ PHECN'UVCPFCTFU

C0Guugpvkcn'ej ctcevgtkuvkeu'hqt"cp{ "tcf kcvkqp"vj gtcr kuv"/8

## IXO' I gpgtcdRqdelgu/:

- C0' Cfo kuukqpu/:
- D0' Vtcpuhgt'Ētgf ku/:
- E0' Eqwtug'Rtqi tguukqp/;
- F0' I tcfkpi/; "( "57
- GO' Gzco u'cpf 'O cmg/wr u/32
- HO' Y tkwgp"Y qtm/32

## X0' EnplectiGf weeklap

- C0' Vtclgeu{u/33''( '55
- D0' Uwr gtxkukqp/5.35.57.59
- E0' Dgtgcxgo gpv/34
- FO' HGTRC/38

## XIO' Enplect/Uchgv(

- C0' Rtqdcvkqp/35
- DO F kuo kuucn/36
- E0' Ngcxg'qh'CdugpegfTgcfokuukqp/36
- F0' Ko o wpk cvkqp'r qrke {/38
- G0' Cwgpf cpeg'Rqrle{/38
- HO' Egm'Rj qpg/3:
- I 0' Ugzwen'J etcuuo gpv'Rqrke{/3:

## XHOI tlgxcpeg/42

C0Rtqegf wtgu'cpf 'F wg'Rtqeguu/ '42

## XKKO' Tcf kcvkqp'Rt gygevkqp'cpf 'Rgrlelgu/'44

- C0 Fquko gxt ['Dcfi gu/44
- D0' Tgrqtw/45
- E0' Rtgi pcpe{'Rqrke{/45
- F0' Tcfkcvkqp''Uchgv{''Qhhlegt/46

## KZ0' I gpgtcnKphqto cvkqp/47

- C0' Cf xkuqtu/47
- D0' ERT/47
- E0' J gcnyj 'Kpuwtcpeg/48
- F0 Rtqhguulqpcn Uqelgylgu 49

# Z0' EnplectiGf weekap'Kplqt o cvlqp/4;

- C0' Eqo r gygpekgu'd{ 'ugo guygt/56
- D0' Gxcnwcykgpu/55
- E0' Eqo r gvgpvkekgu/55
- F0 Vgto kpcn Eqo r gygpekgu/53
- GO' F kt gev'Uwr gtxkukqp/57.59

## **IP VTQF WE VKQP**

Vj ku'j cpf dqqni'qwwhpgu''y g''r j knquqr j {"cpf "qr gtcvkqpcri'htco gy qtmi'qhi'y g'Tcf kcvkqp"Vj gtcr {"Rtqi tco 0Vj gug'i wkf grkpgu''gpcdrg''tcf kcvkqp"'y gtcr {"uwvf gpwu."kpuvtwevqtu."cpf 'hcewn\{"vq"y qtmi' vqi gyi gt'j cto qpkqwm\{"d\{"hquvgtkpi "c"o wwcn'wpf gtuvcpf kpi "qh''gcej "kpf kxkf wcm'u'tgur qpukdkrkkgu0' Eqo o qp"i qcnu."twrgu."cpf "tgi wrcvkqpu''ctg''tgs wktgf "vq"guvcdrkuj "yj g'tki j vu''cpf "tgur qpukdkrkkgu''qh''cm'' rctvkgu0'Vj g''r qrkekgu''eqpvckpgf "y kyj kp"ctg''kpvgpf gf "vq"gpuwtg''yj cv'f gr ctvo gpv'qr gtcvkqpu'y kni'dg'' eqpuknypv'y kyj "kxu'i qcnu''cpf 'tgur qpukdkrkkgu''cu''c''r tqhgunkqpcnii tqwr 0

Vj g'hcewn{ "qh'Tcf kcvkqp" Qpeqmi { "ku'f gf kecvgf "vq" cuukuvkpi "gcej "uwf gpv'kp" tcf kcvkqp" yj gtcr { "kp" cej kgxkpi "vj g"i qcm" qh'vj g"gf wecvkqpcn'r tqi tco 0"Vj g"hcewn{ "gpeqwtci gu'vj g"uwf gpvu" vq" tgcej "vj gkt" hwn'r qvgpvkcn') Vj g'hcewn{ "ku'cnq" qdrki cvgf "vq" r tgr ctg" yj gtcr kuvu" yj q"o ggv'uchg" uvcpf ctf u"qh'r tcevkeg" cpf "ctg" unkungf "kp" yj g'uekgpeg" qh'tcf kcvkqp" yj gtcr { 0

Vj g'Tcf kcvkqp''Qpeqmi {'lœwm{'cfj gtgu''vq''y g'r qrkekgu''cpf 'kphqto cvkqp''qwwkpgf 'kp''y ku'j cpf dqqmi' cpf 'tgugtxgu''y g'tki j v''vq''o cmg''ej cpi gu''y tqwi j ''cevkqp''d{''y g''Gf wecvkqpcn'Cf xkuqt{'Eqo o kwgg0' F wmg''J gcnj ''cpf 'F wmg''Wpkxgtukv{''Tcf kcvkqp''Vj gtcr {''Rtqi tco ''ctg''**r gpf kpi 'ceet gf kcvkqp'**'d{<

Vj g'Iqlpv'Tgxlgy 'Eqo o kwgg'qp''Gf wecvlqp''lp'Tcf lqmi le''Vgej pqmi {"
\*LTEGTV+

42''Pqtyj ''Y cengt'Ftkxg.''Uwkg''4: 72

Ej leci q.''KN'82828/4: 72

Rj qpg'\*534+'926/7522''

Go ckr<u>\*</u>o ckr<u>B ltegtv\qti</u>''

j wrudly y y \( \text{0tegt\qti} \) \( \text{1} \)

Ki'c'uwf gpv'hlpf u''y g''r tqi tco 'ku''P QV''KP 'EQO RNKCP EG'y ky ''cp{ ''qh''y g''Ucpf ctf u ''y g{ ''o c{ ''eqpvcev'y g''LTEGTV0

Wr qp'tgegkr v'qh'y tkwgp"pqvkhlecvkqp"qh'c"eqo r nckpv."vj g"F wng"Wpkxgtukx{"Tcf kcvkqp"Vj gtcr {" Eqpegpvtcvkqp"Rtqi tco "y km'cff tguu''y g"kuuwg"ko o gf kcvgn{0'Y kyj kp'32"y qtnkpi "fc{u."c"ngwgt" uvcvkpi "j qy "vj g"eqo r nckpv'y cu'tguqnxgf"y km'dg"o ckrgf "vq"vj g"LTEGTV0

#### O KUKOP

 $\label{thm:complex} Vj\ g''b\ kuukqp''qh''y\ g'Tcf\ kvkqp''Vj\ gtcr\ \{'Rtqi\ tco\ 'ku''q''tqxkf\ g''tckplpi\ 'kp''y\ g''hgrf\ 'qh''y\ gtcr\ gwke''\ tcf\ kqmi\ \{0'Vj\ g''ttqi\ tco\ )u''i\ qcri'y\ km'ldg''q'hwrhkm'y\ g''pggf\ u''qh''j\ gcnj\ ectg''t\ tqxkf\ gtu''kp''y\ g''eqo\ o\ wpkx{''}\ cpf\ 'uwttqwpf\ kpi\ 'tgi\ kqpu0J\ gcnj\ ectg''t\ tqxkf\ gtu''tgs\ wktg''etkkecn'y\ kpmkpi\ ''cpf\ ''yej\ pkecn'umkmu''q''\ f\ grkxgt''y\ g''dguv'r\ quukdıg''ectg0'Vq''o\ ggv''y\ gug''tgs\ wktgo\ gpwu.''uwxf\ gpwl'ctg''t\ tqxkf\ gf\ 'y\ kj\ ''xctkqwu''\ rgxgnu''qh''tckpkpi\ 0'Vj\ ku''tckpkpi\ ''kpenwf\ gu''y\ gqt{.''enkplecn''tcevkeg.''f\ kf\ cevke''gctpkpi\ .''rcdqtcvqt{''}\ gzgtekugu.''cpf''eqo\ r\ gvgpe{''yguvkpi\ 'kp''y\ g''enkplecn'ugwkpi\ 0'Wr\ qp''uweeguuhwm{''eqo\ r\ gykpi\ ''y\ g''}\ rtqi\ tco\ .''i\ tcf\ wcvkpi\ ''uwxf\ gpwu''y\ km'dg''r\ tgr\ ctgf\ ''vq''o\ ggv''y\ g''tgs\ wktgo\ gpwu''hqt''cp''gpvt{/'rgxgn''r\ qukxkqp''}\ cu''c'tcf\ kcvkqp''y\ gtcr\ kw0$ 

## RJ KNQUQRJ [

Vj g'rj knjugrj {"qhi'yj g'Tcf kc·kqp"Vj gtcr {"Rtqi tco "tghrgewi'yj g'hcewn/{ )u'dgrkghu'cpf "rtqxkf gu'yj g" hqwpf c·kqp"hqt"'yj g'f gxgmr o gpv'qh''yj g'tcf kc·kqp"'yj gtcr {"ewttkewnwo 0'Vj ku'rtqi tco )u'rj knjugrj {"cpf" qdlge-kxgu'crki p"y kyj "F wng"Wpkxgtuk-{ )u'j gcnyj "u{uvgo )u'rj knjugrj { ."o kuukqp"uvcvgo gpv."cpf" kpuvkwkqpcn'i qcnu0

## **QDLGEVKXGU**

Vj g'F wng'Wpkxgtuk{ 'j gcnj 'u{urgo )u'qdlgerkxg'hqt''y g'tcf kcrkqp''y gtcr { "eqpegprtcrkqp''ku''q''r tqxkf g" c'uqwpf 'hqwpf crkqp''hqt''f gxgnqr kpi "npqy ngf i g''cpf 'unkmu'r gtrkpgpv''q''c''r tcerkekpi 'tcf kcrkqp''y gtcr knvO' Vj g''tcf kcrkqp''y gtcr { "eqpegprtcrkqp''r tqo qvgu''ghligerkxg''eqo o wpkecrkqp''dgw ggp''ku''uwxf gpru''cpf ''y g'' enkplecn'r gtuqppgn'y g{ "gpeqwpvgtOGhligerkxg''eqo o wpkecrkqp''gpj cpegu''y g''r tqi tco øu''cdkrkv{ ''q''o ggv'' ku''r tko ct{ 'i qcn'qh'gf wecrkpi 'tcf kcrkqp''y gtcr knvO'Vj g'' tcf wcry''y gtcr knv'y knr<

30'	Rtqxkf g"ceewtcvg"cpf "uchg"tcf kcvkqp"vtgcvo gpvu"cu"r tguetkdgf "d{"vj g"tcf kcvkqp"qpeqmi kuv0
40'	Rgthato "uko wrzykap" r tageg w tgu cpf "r atvenko ci kpi 'hat r j { ukekep kpygtr tgveykap cpf 'hkgn meenk evkap0
50'	Crrn('rtkpekrngu''qh'tcfkcvkqp''rtqvgevkqp0
60'	Gxcnvcvg'r qtvcn'lo ci gu'cpf 'f ki kvcm( 'tgrtqf wegf 'tcf kqi tcrj u0
70'	Gzgtekug'r tqhguulqpcn'lwf i o gpv'y j gp'r gthqto kpi 'r tqegf wtgu0
80'	Utakxg''vq''o ggv'gcej 'r cvkgpvøu''r j {ukecn'cpf 'go qvkqpcn'pggfu''d{ 'r tqxkfkpi 'vko gn(. r tqhguukqpcn'( 'eqo r cuukqpcvg''ectg0
90'	Rtqxkf g'r cykgpy'ectg'guugpykcni'\q'tcf kcykqp''\j gtcr { 'r tqegf wtgu'cpf 'uko wrcykqpu0
: 0'	Tgeqipk g'rcvkgpv'eqpfkkqpu'tgswktkpi'koogfkcvg'cevkqp'cpf'kpkkcvg'dcuke'rkhg/uwrrqtvrtqegfwtgu0
; 0'	O ckpvckp"r cvkgpv'tgeqtf u0
320'	Cuuwo g'tgur qpukdkrk/ 'hqt''y g'cuuki pgf 'ctgc0
330'	Rtqxkf g''kpr w'hqt ''gs wkr o gpv'cpf ''uwr r n( ''f gekukqpu0
340'	Kount wev'ur geldne"f kf cevke "cpf lqt "enkpkecri'gf wecvkqp" wpksu'kp "vj g'tcf kcvkqp" vj gtcr { "r tqi tco." khi cr r nkecdng0
350'	Cuuwo g'cevkpi 'uwr gtxkuqt { 'tgur qpukdkrkv{ 'kp'\j g'cdugpeg'qh'c'uwr gtxkuqt0
360'	Rct vlekr cvg'kp''yj g''s wcrks{ ''cuuwtcpeg''r tqi tco 0
370'	Oc{"dg"tgurqpukdrg"hqt"kpxgpvqt{"eqpvtqn'cpf"uwrrn{"rwtejcugu0

# I QCNU

# I qcil%<' Vj g'rtqi tco 'y knirtgrctg'inwf gpwi'q'dgeqo g'gpwt $\{$ /ngxgitcf kcwlqp vj gtcr knw $\emptyset$ Uwf gpwi'y knidg'ehplecn $\{$ 'eqo rgvgp $\emptyset$ $\emptyset$ $\emptyset$ $\emptyset$ $\emptyset$ $\emptyset$

O ckpvckp'ewttgpv'mpqy ngf i g'd{ 'r wtuwkpi 'eqpvkpvkpi 'gf wecvkqp0

380'

- C0' Uwf gpul'y kni'r qukkqp'r cvkgpul'cu'f ktgevgf 'kp''y g''ttgcvo gpv'tgeqtf ''qt''r ncp''wpf gt''y g'' f ktgev'uwr gtxkukqp''qhi'c'tcf kcvkqp''y gtcr knv0
- D0' Uwf gpvu'y kni'qr gtcvg''gs wkr o gpv''vq''f grkxgt''y g''r tguetkdgf ''y gtcr gwke''f qug''wpf gt''y g'' f ktgev'uwr gtxkukqp''qhi'c'tcf kcwkqp''y gtcr kuv0
- E0' Uwf gpvu'y kmlf go qpuvtcvg'i qqf 'tcf kcvkqp''uchgv\{ 'r tcevkegu0

# I qcn'%-Vj g'r tqi tco 'y knicmy 'inwf gpwi'vq'f gxgmr 'qtcnicpf 'y t kwgp'eqo o wplecwqp'imkm0 Qweqo gu<

- CO Vj g'uwf gpv'y km'f go qpurtcvg'ghhgevkxg''qtcn'eqo o wplecvkqp''umkmu'kp''y g'enkplecn'ugwkpi 0
- D0' Vj g"uwf gpv'y km'f go qpuvtcvg" yj g"cdkrkv{ "vq"y tkvg" cpf "r tgugpv'kphqto cvkxg" tgugctej "r cr gtu0

# I qcn%/Uwf gpw'y knif gxgmr 'et klech'y lonloi 'inkm0'

Qweqo gu<

C0' Uwf gpvu'y km't geqi pk g'ugwr 'f kuet gr cpekgu0

DO' Uwf gpul'y kni'f guki p'c''ut gevo gpv'r nep0

# I qcn'% < Vj g'rtqi tco 'y knirtqxkf g'uwf gpwi'y kyj 'vj g'o gcpu'vq'f gxgmqr'rtqhgwlqpcnkuo 'cpf'' gpeqwtci g'rtqhgwlqpcncpf 'rgtuqpcni tqy vj 0

Qweqo gu<

C0' Vj g'uwf gpv'y kni'f go qpurtcvg'wpf gturcpf kpi "cpf "eqo o ko gpv'vq'xcnwgu'cpf "gyj keu0

D0' Vj g'uwf gpv'y km'f go qpuntcvg'eqo r cuulqpcvg'r cvkgpv'ectg0

E0' Vj g'i tef wevg'y km'r etvkekr evg'kp'r tqhguukqpen'epf lqt'r gtuqpen'i tqy yj ''cevkxkkgu0

# I qcn'% < Vj g'rtqi tco 'y kmirtqxkf g'qwt'j gcnyj ectg'eqo o wpks{ 'y kyj 's wcnks{ 'tcf kcwlqp" yj gtcr kmm0

Qweqo gu<

C0' Uwf gpw'y j q'dgi kp'y g'r tqi tco 'y km'i tcf wcyg0

DO' I tef wevgu'y km'r euu'y g'CTTV'gzeo ''qp''y g'hktuv'ewgo r v0

E0' Vj g'r tqi tco 'y km'i tcf wcyg's wcrkx{ 'tcf kcykqp''yj gtcr kuxu0

F0' I tcf wcygu'y km'dg'go r m{cdng0

GO' I tef wevgu'y km'dg'edng'vq'kpf keevg'vj ev'vj g'r tqi teo 'r tgr etgf 'vj go 'vq'r gthqto 'vj g' f wkgu''qh'ep''gpvt {/ngxgn'tef kevkqp'vj gter kuvO

# FWMG'WPKXGTUKV[ 'TCFKCVKQP'VJ GTCR[ 'RTQI TCO

# RGTUQP CN'DGJ CXKQT'GZ RGE V CVKQP U FTGUUE OF G'HOT'UVWF GP VUIP'VJ G'ENIP KE CN'CT GCU

# 7cXYcZDfcZ/gg|cbU 7cbXi Wd

j wrudło gfuej ggnff wng(gf wlgf weckgp lj genj/r tahguukapu/gf weckgp/r tai teo uluwf gpv" y gmpguukagf g/r tahguukapen/eapf wev

Vj g'uwf gpuu'o wuv'wpf gtuvcpf "vj cv'y g{ "tgr tgugpv'F wng"Wpkxgtukv{ ."vj g'tcf kcvkqp"y gtcr { "f gr ctvo gpv."cpf "vj g'r tqhguukqp0Vvj g'uwf gpvu'y knihqmqy "vj g'j gcnyj ectg"u{uvgo "qpdqctf kpi "r tqeguu" y cv'y kni'dg"o cf g"cxckrcdng"vq"y go "f wtkpi "vj g'lktuv'y ggni'qh'y g"qtlgpvcvkqp"uguukqp0KVku'y qtyj "pqvpi "vj cv'tcf kcvkqp"qpeqmi { "uwf gpvu'ctg"pqv'grki kdng"hqt"dgpghkvu'dgecwug'y g{ "ctg"go r mq{ggu'qh" y g"enkplecnilpvvkxwkqp0Uvwf gpvu'y kni'dg"eqxgtgf "wpf gt "vj g"F wng"Wpkxgtukv{ "J gcnyj "U{uvgo /Cnkgf" J gcnyj "Uwf gpvu'hkcdktv{ "kpuwtcpeg"r qrke{0J qy gxgt."vj g{ "ctg"dqwpf"d{ "vj g"kpuvkwwgau'twrgu"cpf" tgi wrcvkqpu"ulpeg"yj g{ "y kni'gpeqwpvgt"r cvkgpvu"qp"vj gkt"r tgo kugu0Uvwf gpvu"o wuv'cdkf g"d{ "vj g"twrgu"qh" yi g'tcf kcvkqp"qpeqmi { "r tqi tco ."kp"cf f kkqp"vq"vj qug"guvcdnkuj gf "d{ "F wng"J gcnyj ."cpf .'kh'cr r nkecdng." yi g"enkplecnilpvvkxwkqpu'y j gtg"vj g{ "o c{ "tqvcvg"hqt"qdugtxcvkqpv0Gcej "uwf gpv'ku'tgur qpukdng"hqt" tgcf kpi ."wpf gtuvcpf kpi ."cpf "cf j gtkpi "vq"vj gug"twrgu0Vj g"hqmqy kpi "tgi wrcvkqpu"cpf "vj g"Tcf kcvkqp" Rqnkekgu"kp"Ugevkqp"\$Xö'y km'cuukuv'yi g'uwf gpvu'hp"dgeqo kpi "f guktcdng"tgr tgugpvcvkxgu"qh" qwt"r tqi tco 0

WP HOTO <Vj g'tcf kcvkqp" y gtcr {"wpklqto "lqt" wwf gpwl'eqpukuw'qhi'c'wetwd'wwk'qhi'crrtqrtkcvg" r tqhguukqpcn'crr gctcpeg. "y g"eqnqt"qhi'y j kej "ku"cp { "uj cf g"qhi'i tg { "qt'\gcn0Vj g" wpklqto "uj qwf "dg"engcp"cpf "r tqr gtn( "hkwgf 0C"engcp"ncd"lcengv'ecp"dg" y qtp"qxgt 'ko' Wpf gti cto gpwl'uj qwf "pqv'dg"xkukdng" y tqwi j "y g"wpklqto 0

<u>UI OGU</u>'Uj qgu''o ww'dg''ergcp''cpf 'j cxg''ergcp''rcegu0'Vj g{ ''o ww'pqv'j cxg''qr gp''vqgu''qt 'j ggm0' Emi u.''nrkr/hmr u.''ucpf cnu.''cpf ''ecpxcu''uj qgu''ctg''wpceegr wdrg0'Upgcngtu''y kj ''eqnqt''dtcpf '' mi qu''ctg''ceegr wdrg0

RI QVQ'KF.'PCO G'VCI U'cpf 'RCTMRI < Vj g"pco g"ci "ku'\q"dg"qdvckpgf "hqo "yj g" Wpkxgtuk\{"Hcekkklgu"mecvgf "cv'yj g"F wng"Ugtxkegu"Egpvgt)u'o ckp"eco r wu0K'ku'\q"dg"y qtp" cpf "xkuklng"cv'cm'\ko gu'y kyj "yj g"wpkiqto "cpf "lcengvlncd"eqcv0'Vj ku'\ci "o wuv'dg"tgwtpgf "\q" F wng"I gcnyj "hcewn\{"cv'yj g"gpf "qhi'yj g"r tqi tco "qt"wr qp"f go cpf 0'Uwf gpv'r ctmkpi "\ci u'y km' cnq"dg"qdvckpgf "htqo "yj ku'qhhkeg0

<u>**DOF[ 'RKGTERPI U</u><**K'ku'ceegr vcdrg'kh'eqxgtgf "cpf 'wpuggp."cpf 'r qugu'pq'j cto ''vq'ugrh'qt'' r cvkgpvu0</u>

<u>VCVVQQU</u>K'Vj g{ "ctg"ceegr wdrg"kh'vj g{ "ctg"pqp/qhhgpukxg"cpf "pqv'ewnwtcm{ "qt"ugzwcm{ "itcrj ke0'Kh'vj g{ "ctg"f ggo gf "kpcrrtqrtkcvg."{qw'y km'dg"cungf "vq"eqxgt"vj go 0

<u>UY GCVGT</u> <C'uy gcvgt'o c{"dg"y qtp"qxgt"c"wplkqto ."dw'uj qwf "dg"y qtp"wpf gt"y g"lcengv" qt"rcd"eqcv0K'o ww'dg"ergcp."htgg"qh"qhhgpukxg"ko ci gu"qt"y qtf kpi ."cpf "c"uqnkf "eqrqt0J qqf kgu" ctg"pqv'ceegr vcdrg0

\*Vjg"Uwfgpv"KF"owuv"dg"xkukdng0+

JCKT < Jck "o wuv'dg"engcp"cpf "y gm/i tqqo gf 0 Gzvtgo g"j cktuv{ngu"cpf "j ckt"eqnqtu"uj qwrf "dg" cxqkf gf 0 Jck "ceeguuqtkgu"o wuv'dg"uk| gf "crrtqrtkcvgn(0 Dgctfu"cpf "o wuvcej gu"uj qwrf "dg" vtko o gf "pgcvn("cpf "r tqhguukqpcm(0

RGTUOP CN'I TOOO RPI <0 ckpvkpkpi "r gtuqpcn'ergcprkpguu. "kpenwf kpi "tgi wrct'dcyj kpi ." y g'wug'qh'lf gqf qtcpv."cpf "r tqr gt "qtcn'j {i kgpg. "ku"guugpvkcn00 qf gtcvg"o cngwr "ku"ceegr wdrg." dw'r gthwo g. "o krf "eqnqi pg. "cpf lqt'uj cxkpi "nqvkqp"ctg"wpceegr wdrg0P cknu"o wuv'dg"ergcp." y gm/vtko o gf. "uo qqvj. "cpf "tgcuqpcdn("uj qtv0C"pcwtcn"ergct/eqnqtgf "pckrl'r qrkuj "o c{"dg" y qtp"kh'kv'ku'pqv'ej kr r gf "qt"etcengf 0P q"nqpi "r tquvj gvke"pcknu"cmy gf 0

RTOHGULOP CN'DGJ CXKOTUL'Uwf gpw'y km'eqpf wev'y go ugnxgu'lp''c r tqhguulqpcn'cpf "f ki pkhlgf "o cppgt "cv'cm'llo gu0'Uwf gpw'y km'o kpko kj g'eqpi tgi cvkpi "lp" i tqwr u'lp''r cvlgpv'ctgcu'cpf "nggr "pqkug''vq"c "o kpko wo "vq"cxqkf "f kuwtdlpi "qyi gtu0 Uwf gpw'ctg'pqv'r gto kwgf "vq"o cng"qt"tgegkxg"r gtuqpcn'r j qpg"ecmu'gzegr v'lp"go gti gpekgu0' Cm'ecmu'uj qwrf "dg"ergctgf "yi tqwi j "yi g"enlpkecn'r tgegr vqt0

Uwf gpul'cttkkipi "kp"y g"enkplecnlicektkigu"wpf gt"y g"kphrwgpeg"qhi'eqpvtqmgf "uwduvcpegu." kpenwf kpi "creqi qn"y km'dg"ugpv'j qo g0Vj ku'o c{"tguwn'kp"f kuo kuucnlitqo "vj g"r tqi tco 0 Vj gtg"ku'pq"gcvkpi ."f tkpmkpi ."i wo "ej gy kpi ."uo qmkpi ."qt"vqdceeq"ej gy kpi "kp"y g"r cvkgpv'ectg" ctgcu0Ej gemly kyj "vj g"enkplecnlicektky{"hqt"f guki pcvgf "ctgcu0

# WUG'OH'VODCEEO'RTOF WEVUK \*Ugg'Wpf gti tcf wcvg'Dwrgvkp+

<u>UEJ GF WNIP I 'O GGVIP I U</u>Ki'{ qw'pggf "vq'wug"cp{ "r ctv'qh'vj g"dwkrf kpi "hqt"c"o ggvkpi ." r ngcug"cttcpi g"vj ku'y ky "vj g"Wpkxgtukv{ "Hcekrkskgu"Qhhkeg0"Vj g"o gf kecn'hkdtct { "ku"cxckrcdrg"hqt" uwf gpvu"vq"ugv'wr "c"ur ceg0

HOOF 'CPF'FTHP MUZHqqf "cpf" ftlpmu"ctg"rtqj kdkgf "kp"y qtmleqpuqrg"ctgcu"cpf" mdqtcvqtkgu0J qy gxgt. "y kj "kputwevqt"crrtqxcn"tghtguj o gpvu"o c{"dg"cmqy gf"kp" emuutqqo u"cpf" fguki pcvgf "enkple"ctgcu. "rtqxkfgf" y g{"ctg"ugcrgf"cpf"rmegf"kp"y g" fguki pcvgf" ftcvkqp"uvcvkqpu0

**RCTMRP I** < Uwf gpvu"ctg"vq"r ctmlkp"f guki pcvgf "ctgcu"qpn(0'Rctmlxpi "lxphqto cvkqp"y km'dg" r tqxlf gf "cv'qtlkgpvcvkqp0

<u>I WGUVU</u><I wguwu'ctg"pqv'r gto kwgf 'kp"yj g"encuutqqo "y kij qww'yj g'kpuvtwevqtøu'r gto kuukqp0' Rngcug'f q"pqv'dtkpi "{qwt"ej knf tgp"vq"encuu'qt"enkpke"cpf "ngcxg"yj go "wpcwgpf gf 0

OCKNDQZGUZVj g'Tcf kcvkqp''Qpeqmi {'Dwukpguu''Qhhkeg''Uwkg''ockndqzgu''ctg''wugf 'hiqt'' eqoowplecvkqpu.''gzco''itcf gu.''cpf lqt''r qnke{''ej cpi gu0'Rngcug''ej gent'y g''ockndqzgu''qp''encuu'' fc{u0

GO CKN<br/>Uwf gpul'y km'dg'i kxgp''c'F wng''go ckn''cfftguu''cpf ''gpeqwtci gf''vq'tgxkgy ''y gkt'' go cknu''f ckn(''hqt''eqo o wpkecvkqp''cpf ''wr f cvgu0

POVG-'Uwf gpw'y j q'f q'pqv'hqmqy 'vj gug't wigu'y knidg'igpv'j qo g0P q'et gf kv'y knidg'i kxgp" htt 'cp{ 'r ct v'hlivi g'etholecnif c{ 0

# VGEJ PKECN'UVCPFCTFU'IY QTMGT'EJ CTCEVGTKUVKEUQH'C TCFKCVKQP'VJ GTCKKUV

Vj g'hqmqy kpi "ctg"guugpvkcn'ej ctcevgtkuvkeu'hqt"cp{ 'tcf kcvkqp"vj gtcr kuv'cu'eqo r krgf 'htqo 'qdugtxcvkqpu" qh'xctkqwu'lqd"gzr gtkgpegu0

#### 30' XKUWCN'CEWKV[ <

Ær gvgto kpg"y j gvj gt"vj g"i cpvt{"crki pu"y kj "vj g"r ctco gvgtu"guvcdrkuj gf "d{"vj g" vtgcvo gpv"r rcp0

ÁD wuv'dg"cdrg"\q"xkuwcrk g"pwo gtkecrixcrwgu"r tqlgevgf "d{"\y g"tcpi g"hkpf gt0 ÁRgthqto "pgeguuct{"r tqegf wtgu"\y cv'o c{"kpxqrxg"r rcekpi "pggf rgu."ecyj gvgtu." qt"qyj gt"rqecrk cvkqp"f gxkegu"\q"f grkpgcvg"c"r cvkgpv\u'cpcvqo kecriuxtwewtgu0

ÁT gcf 'r tqvqeqn'cpf 'tcf kcvkqp''vj gtcr { 'ej ctwi'kp''vj g'f gr ctvo gpv0

ARgthqto 'f cvc'gpvt { '\cumu'\wukpi 'f ki kscn'cpf 'eqo r wgt'\gto kpcnu0

AP gct/xkuwcn'cewkv{ "cpf "f gr yj "r gtegr vkqp"ctg"tgs wktgf "vq"gzco kpg"f ki kkcm{ "tgr tqf wegf "tcf kqi tcr j u"cpf "gpuwtg"f wr necvkqp"qh"uko wicvkqp"F TTu0

Cffkklqpcm(.'r cvkgpv'xkxcn'uki pu'ctg'vcmgp'vukpi 'o gfkecn'f gxkegu.'kpenwfkpi '' yi gto qo gygtu'cpf 'ur j {i o qo cpqo gygtu'0

Á O wuv'dg''cdrg''vq''tgcf ''wpku''qp''c''u{tkpi g0

Á O wuv'dg"cdrg"\q'y qtmlkp"f ko n( 'rkv'ctgcu'\uvej "cu'\uveg gpv'xcwnu'cpf EVIRGV10 T Kluko wrcvkqp'\uveksgu0

# 40' J GCTIPI 'CEWKV] <

Ál gctkpi "o wuv'dg'uwhhkekgpv'vq'eqo o wpkecvg'y ky "qy gtu0

ÁF kukpi wkuj " r j qpgvke" uqwpf u." gkvj gt" o gej cpkecm(" vtcpuo kwgf" qt" litqo " eqpxgtucvkqp."vq"r gtlqto "vtgcvo gpv"( "uko wrcvkqp"vcumu"kp"nki j veqpvtqmgf" ctgcu0

A gct "cpf "tgvckp" r gt vkpgpv kphqto cvkqp" vq "tgrc { "kpuvt we vkqpu0

ANkurgp"\q"cpf "tgur qpf "\q"r c\kgpv's wgurkqpu"cpf "tgxkgy "vj gkt "enkpkecn'j kurqt {0

# 50' URGCMIPI 'CDKNKV] <

Ár gcm'engctn( "cpf "mwf n( "gpqwi j "vq"dg"wpf gtuvqqf "d ( "uqo gqpg"kp"vj g" tcf kcvkqp"qpeqmi { "f gr ctvo gpv'qt"qp"vj g"vgngr j qpg0

ÁGhlge kxg"eqo o wpłecktop "umkmu"ctg" guugp kcnlhqt "o ckp ckpkpi "uxtqpi "kp vgtr gtuqp cnltgre kqpuj kr u'y kyj "r c kgp vu"cpf "r ggtu0

## 60' FK KVCN'FGZVGTKV[ <

Á teur "epf "o epkr wrevg"uo emi'qdlgevu"tgs wktgf "vq"r gthqto "lqd"hwpevkqpu0

Argtegkzg"cwtkdwgu"qh"qdlgewi'qt"o cvgtkcnu. 'uwej "cu"uk| g."uj crg." \gorgtcwtg." vgzwtg."o qxgo gpv."qt"r wncvkqp." yj tqwi j "tgegr vqtu"kp"yj g"umkp."r ctvkewnctn(" yj qug"kp"yj g"hkpi gtvkru0

Á Qr gtcvg"c"xctkgv("qh"vj gtcr gwke"cpf "EV"gs wkr o gpv0

Á Cto u'cpf 'j cpf u. 'qt 'hwpevkqpcn'ctvkhleken'nko du. 'ctg''guugpvken'nqt'r gthqto kpi tef kevkqp'r tqegf wtgu'cpf 'vtcpuligttkpi 'r cvkgpvu0

ÁNgi u'cpf 'hggv.''qt 'hwpevkqpcn'ct vkhlekcn'rko du. ''ctg''guugpvkcn'hqt''o ckpvckpkpi ''dcrepeg. ''ceeqo r nkuj kpi 'tgs wktgf 'f wkgu. ''cpf ''tcpur qtvkpi 'r cvkgpvu0

## 70' RJ [ UKECN'CDKNKV] <

Ay cm'qt 'uvcpf 'hqt 'cdqw': 2' 'qh'c'\{r kecn'y qtnf c{0}

AO cpgwxgt"yi tqwi j "eqpi guvgf "ctgc\*u+"qt"wpkx\*u+"\q"r gthqto "\tgcvo gpv\( "uko wrcvkqp"r tqegf wtgu"cpf "\tcpur qtv'r cvkgpvuO

ÁT ckug''cto \*u+'y j krg''o ckpvckpkpi ''dcrcpeg''y j gp''r qukklqpkpi ''c'r cvkgpv.''
tgcej kpi ''qxgt''y g''vcdrg.''cpf ''kpugtvkpi ''ewuvqo ''ttgcvo gpv'f gxkegu0

AO cpgwxgtcdkrkv{ 'kp'\uckty c{u.'j cmy c{u.'eqpvtqrltqqo u.'j qv'rcdu.'dmqem' tqqo u.'cpf 'kperkpguO

ARwuj Ir wm'o gf kecn'gs wkr o gpv. 'rkhv'\tgcvo gpv'f gxkegu'cpf 'ceeguuqt kgu=' \tcpuhgt 'r cvkgpvu'\q'cpf 'htqo '\wpksu0

Avj g'y qtmgt "o wuv'cnuq "o qxg"s wkemn{ "cpf "y qtm'lkp"eqphkpgf "ur cegu'f wtkpi " r cvkgpv'go gti gpekgu0

## 80' CF CRVKXG'CDKNKV[ <

Æqo r rgvg'\cumu'qt''lqd''hwpevkqpu'y ky kp'f gcf rkpgu0

Æqo r ngvg't gs wkt gf 'vcumu'cpf 'hwpevlqpu'wpf gt 'uvt guuhwrleqpf kslqpu0

Atcemicpf "eqo r ngvg" o wnwkr ng "vcumu" uko wnwcpgqwun (0

# ÁRgthato 'kpf gr gpf gpvn('y kij 'o kpko cn'uwr gtxkukapo Ákovgtcev'cr r tar tkcvgn('y kij 'f kxgtug'r gtuapcnkukgu)

#### I GPGTCN'RONKEKGU

RPVTQFWEVRQP<<u>i wru<1lo gf uei ggaff wmg\ef w\ef wecvkqp1i gcmi/rtqlguukqpu/gf wecvkqp/</u>"rtqitco u

F wng "Wpkxgtukx{ "r qrkekgu"hqt"tgvgpvkqp"cpf "r tqi tguukqp"cr r n{ "vq"tcf kcvkqp"vj gtcr { "uvwf gpvu."gzegr v'kp" kpuvcpegu"y j gtg"ur gekhke 'Tcf kcvkqp"Vj gtcr { "Rtqi tco "uvcpf ctf u'iwr gt uef g'wpkxgt ukx{ 'iwcpf ctf u')

Vj g'F ktgevqt"cpf "r tqi tco "qhhkekcni"j cxg"yj g"cwyj qtkx{ "cpf "tgur qpukdkrkx{ "vq"tghwug"cf o knulqp"qt"vq" ugr ctcvg"cp{ "uwf gpv'htqo "yj g'Tcf kcvkqp"Vj gtcr { "Rtqi tco "kh"vpwuvcn'ngi cn"o qtcn"j gcnyj ." go qvkqpcn"qt"cecf go ke"ektewo uvcpegu"kpf kecvg"yj cv'yj g"uwf gpv'ku"pqv's wcnkhkgf "hqt"tcf kcvkqp"vj gtcr {0}

## CO' L GPGTCN'GFWECVKOP <

Cf o kukqpu'Rqrke{<C'uweeguuhwiecpf kf cvg'y km'r quuguu'cp'CTTV/tgi kuvgtgf 'tcf kqrqi ke'' vgej pqrqi kuv'etgf gpvkcn'cpf 'c'o kpko wo 'qh'cp'cuuqekcvg)u'qt'j ki j gt'f gi tgg'd{''yj g'r tqi tco )u'' uvctv'f cvg0Cp{''o clqt'ku'ceegr vcdrg0

O gf kecnVgt o kpqnqi {.'Eqngi g'Cni gdtc.'cpf 1qt'Eqngi g'Rj {ukeu'cu'y gmlcu'J wo cp" Cpcvqo {'('Rj {ukqnqi {'Kcpf' KKy kyj' ircdu'ctg'j ki j n('tgeqo o gpf gf'eqwtugu')

I RC<Uwi i guvgf 'O IP KO WO '502"\q"crrn{

Chigt "c'uwf gpv'j cu'dggp "ceegr vgf 'kpvq' vj g'Tcf kcvkqp" Vj gtcr { "Rtqi tco."qpn( "eqnigi g'y qtm' gctpgf "cv'F wng" o c { 'dg" crr nkgf 'vqy ctf 'vj g'Tcf kcvkqp" Vj gtcr { 'Egtvkhkecvg0

Rtgtgs wkuksgu''cpf 'tgeqo o gpf gf ''gf weckqpcn'eqwtugu''ctg''ugs wgpegf ''vq''r tgegf g'tcf kckqp''
yi gtcr { "eqwtugu."r tqxkf kpi "c''uqnkf ''hqwpf ckqp''hqt''yi g''uwf gpv0'Vj g{ "uj cm'pqv'dg''cngp''ncygt''
yi cp''ur gekhkgf 0'Rngcug''eqo r ngvg''yi g''tgs wktgf ''r tgtgs wkuksg''eqwtugu''cpf ''o ggv'yi g''r tqi tco )u''
tgs wktgo gpvu''vq''cxqkf ''f kuo kuucn'htqo ''yi g''r tqi tco ''kh''ceegr vgf .''r tqxkf gf ''yi gug''eqpf kkqpu''ctg''
o gv''d{ ''yi g''r tqi tco )u''uvctv'f cvg0

## Vtcpulgt 'Etgf kx<

Cu'c'qpg/{gct'egtvkhecvg'r tqi tco .''qwt'r tqi tco "f qgu'pqv'ceegr v'\tcpulgt'uwf gpvu'htqo "qvj gt" tcf kcvkqp''vj gtcr { "r tqi tco u0'Kh'cp"gptqngf "F wng''vj gtcr { "uwf gpv'tgs wguvu''vq''\tcpulgt''vq" cpqvj gt''tcf kcvkqp''vj gtcr { "egtvkhecvg''r tqi tco "vj cv'ceegr vu'\tcpulgt''uwf gpvu. 'kv'ku''vj g''uwf gpv\u" tgur qpukdkrkv{ "vq'f gygto kpg'y j kej "eqwtugu''ctg''\tcpulgtcdng''vq''vj g''pgy "r tqi tco 0

# DO' EQWIUG'RIQI TGUUQP <

Uwf gpwl'o ww'uweeguuliwm{ "eqo r ngvg" yi g'tcf kcvkqp" yi gtcr { "eqwtugu" kp"c" mi kecn'ugs wgpeg0 C"eqo r ngvg" eqwtug" uej gf wng "ku'cxckrcdng" dgmy 0

#### HcmlUgo guvgt

Erkplecn'Tcf kcvkqp''Qpeqrqi {
Uko wrcvkqp''( "Vtgcvo gpv'Vgej pks wgu''K
TV'Rcvkgpv'Ectg''( "Kpvgtcevkqpu
Tcf kcvkqp''Vj gtcr { "Rj {ukeu
Enkplecn'Gf wecvkqp''K

#### Urtkpi 'Ugo guvgt

Uko wrwkqp"( "Vtgcvo gpv"Vgej pks wgu"4
Tgugctej "O gvj qf qmi { "kp"Tcf kqmi ke"Vgej pqmi {
Tcf kcwkqp"Vj gtcr { "Vtgcvo gpv"Rrcppkpi "( "F quko gvt {
Etquu/Ugevkqpcn"Cpcvqo { "hqt"Vj gtcr kuvu
Tcf kcwkqp"Rtqvgevkqp
Tcf kqdkqmi {
Enkplecn"Cf wecwkqp"KK

#### Uwo o gt 'Ugo guvgt

Tcf kcvkqp"Vj gtcr { "Tgi kuvt { "Tgxkgy Tgugctej "O gvj qf qrqi { "kp"Tcf kqrqi ke"Vgej pqrqi { Erkpkecn'Gf wecvkqp"KKK

Vj g'uwf gpv'ku't gur qpukdng'hqt 'hqmqy kpi ''yj g'egt wheevg'r ncp''guvcdrkuj gf ''d { ''yj g'tef kewlqp'' yj gter { ''r tqi teo 0'Cf xkugo gpv'y km'veng'r neg'ev'yj g''gpf ''qh''geej ''ugo guvgt0

## EO' O PP KO WO 'I TCF G<

C'o kpko wo 'i tcf g'qh'E'ku'tgs wktgf 'kp'gcej 'tcf kcvkqp'\'y gtcr{'eqwtug0

```
30' Vj g'ueqtkpi 'tcpi g'hqt''y g'F wng'tcf kc\lqp''y gtcr { 'r tqi tco 'kı< ; 2"/"322' " ? 'C : 2"/" : ; ' " ? 'D 97"/" 9; ' " ? 'E 82"/" 96' " ? 'F Dgqy '7; ' " ? 'H
```

- 40' I tef g'dgrqy 'E<'Vj g''uwf gpv'ku'tgur qpukdrg'hqt'tgeqi pk kpi ''y g''ugtkqwupguu''qh''ep{ ''i tef g'' dgrqy ''ōEö''epf ''uggrkpi ''eqwpugrkpi ''htqo ''y g''kpurtwevqt''eu''uqqp''eu'r quukdrg0
- 50' C'f lf cevle'gzco 'i tcf g'dgny '97' 'o c{ 'pgegunkcvy'c't gwgwlCp"gzco 'i tcf g'dgny "97' 'o c{ 'tgwwlkp"c'uwf gpv'dgkpi "r neegf "qp"cecf go le'r t qdcvkqp0Vj g" kpurtwevqt lr tqi tco "f ktgevqt"y knif kuewu'y g'vgto u'hqt"t guekpf kpi "cecf go le'r tqdcvkqp" y j gp"kv'ku'ko r qugf 0'Vj g'i tcf g'tgeqtf gf "cpf "ecnewncyf" kpvq"{qwt "eqwtug'i tcf g'ku'y g" ueqtg'tgegkxgf "vj g'hktw'vko g'vj g'gzco kpcvkqp'ku'i kxgp0

## O NUGF 'GZCO U'CPF'O CMGWR'GZCO UK

Vj g'uwf gpv'ku'gzr gevgf '\q'f kuewuu'cp{ 'gzvgpwcvkpi 'ektewo uvcpegu'y kij '\j gkt'kpuvtwevqt." r tghgtcdn( 'kp'cf xcpeg0

- 60' O cngwr ''guwi''Y KNN'P QV''dg''i kxgp ''wpnguu''crrtqxgf ''d{ ''y g'kpuntwevqt 'kp''cf xcpeg0'Vj g'' i tcf g'liqt''o kuukpi ''cp''gzco ''crrqkpvo gpv'ku'\ GTQ0'Ki'c'| gtq'ku''i kxgp''hqt''c''o kuugf ''gzco ." kv'y km'dg''eqwpygf ''cu''y g''3w''tgvguv'\*3+0C''tgvguv'o c{ ''dg''eqpf wevgf ''cv'y g'kpuntwevqt)u'' f kuetgvkqp ''wpvkri'y g'tgs wktgf ''97' ''ku''cej kgxgf .''wr ''vq''c''o czko wo ''qh''y q'tgvguw0'Ki'pqv'' cej kgxgf ''d{ ''y g''y ktf ''cwgo rv'F KUO KUUCN'litqo ''y g'tcf kcvkqp''y gtcr { ''rtqi tco ''y kn'' tguwn0'Chxgt'tgxkgy kpi ''y g''o cvgtkcn'vguvgf .''y g'tgvguv'o wuv'dg'uej gf wrgf ''y kyj "{ qwt'' kpuntwevqt''cpf ''eqo rrgvgf ''y kyj kp''UGXGP ''EQP UGEWVKXG'FC[ U0'Vj ku''y km'dg''y g'' QP N[ ''TGXKGY ''cmqy gf 0'Vj g'tgvguv'ueqtg'y km'pqv'dg''eqo r wrgf ''kpvq''y g''eqwtug''i tcf g0'' Hcknxtg''vq''tgvguv'kp''y g''cmqwgf ''co qwpv'qh'vko g'y km'tguwnv'kp'F KUO KUUCN'litqo ''y g'' tcf kcvkqp''y gtcr { ''rtqi tco 0
- 70' Uwf gpwl'y j q"cttlxg"rcvg"qp"\gurkpi "f c{u" Y KNN"P QV"dg"r gto kwgf "\q"\cng"\y g"gzco "kh" cpq y gt "uwf gpv" j cu"cnt gcf { "eqo r rgvgf" 'y g"\gur\cpf "rgh\'y g"encuut qqo 0 Vj ku"y knitguwn\'kp"c" | gtq'hqt "y cv'gzco "cpf "o c{"dg'tguej gf wrgf "cv'y g"kpunt we\qt)u" f kuet gxkqp0
- 80' Cp{"o kf/vgto "i tcf g"wpf gt"c"oEö"o c{"tguwn/kp"vj g'uwwf gpv'dgkpi "r ncegf "qp"cecf go ke" r tqdcvkqp0
- 90' Cp{"hpcni tcf g"dgnqy "c"ōEö"hp"tcf kcvkqp"yi gtcr {"cpf "tgrcvgf "uekgpegu"tgs wktgu"yi g" uwwf gpv)u"ugr ctcvkqp"htqo "yi g"tcf kcvkqp"yi gtcr {"r tqi tco 0Tg/gpvt{"hpvq"cp{"tcf kcvkqp" yi gtcr {"eqwtug"hp"y j kej "c"i tcf g"qh"nguu"yi cp"ōEö"y cu"gctpgf "y km'dg"f gvgto kpgf "d{"yi g" cf xkuqt {"eqo o kvgg)u"cevkqp"cpf "yi g"kpuvtvevqt)u"tgeqo o gpf cvkqp0
- : 0' Cm't gs wkt go gpvu'nkuvgf 'y kyj kp''yj g'eqwt ug'u{ mcdwu'o wuv'dg'o gv'dghqt g'c'hkpcn'i tcf g'y km' dg'i kxgp0

## F0' Y TKVVGP'Y QTMRQNKE[ <

Cm'y tkwgp"cuuki po gpwu'ur gekhlef "d{ "vj g"u{mcdwu'o wuv'dg"uwdo kwgf 0

- 30' C'42' 'f gf wevkqp'y km'dg''cr r nkgf ''vq''y g''gctpgf ''ueqtg''kh'kv'ku''uwdo kwgf ''y kyj kp''hkxg'\*7+'' uej qqn'f c{u''qh''y g''qtki kpcn'f wg''f cvg0
- 40' Y knitgegkxg'**pq'**pwo gtkecn'etgf kv'kh'uwdo kwgf "ukz'\*8+"qt"o qtg'uej qqn'f c{u'chwgt'vj g" qtki kpcn'f wg'f cvg0J qy gxgt."CNN'cuuki po gpvu'o wuv'dg'uwdo kwgf 'vq'cxqkf 'cp'' kpeqo r ngvg'eqwtug0
- 50' Uwf gpwl'y j q'eqpukuygpwl 'uwdo kv'ncvg'y qtml\*5"qt"o qtg"cuuki po gpwlrtqlgewr"y km'dg" r ncegf "qp"cecf go ke'r tqdcwlqp0
- Rrci ketkuo "o c{"tguwn/kp"f kuo kuuenlitqo "vj g"r tqi teo 0
- 70' Uwf gpwl'ecppqv'uwdo kv'y g'uco g'r cr gt 'hqt 'etgf kv'vq'f khhgt gpv'eqwtugu0

# HI<u>' ENIP HE CN'GF WE CVKOP.'UWRGTXHUKOP.'GXCNWCVKOP.'DGTGCXGO GP V</u> VKO G.'CPF'CVVGPFCPEG<

Hqt'b qtg'f gvckgf 'Kplqto cvkqp'cpf 'ErkplecriUsg'Vgrgr j qpg'P wo dgt u'r rgcug"
Tghgt 'kq'{ qwt 'ENRP KECN'GF WECVKQP 'EQO RGVGP E[ 'UGEVKQP0<u>Hqt't cf kcvkqp</u>"
rt qvgevkqp'r qrkelgu'r rgcug't ghgt 'kq'kj g'tgevkqp'qh'kj ku'j cpf dqqmillsvgf '\daggar TCF KCVKQP'
RTOVGE VKOP 'RONKE KGUb

Vj g'f guki pcvgf 'tcf kcvkqp''y gtcr kmu'y km'eqpf wev'c'erkpkecn'gxcnwcvkqp''
\*tcf kcvkqp''y gtcr kmu'kp''i qqf 'uvcpf kpi ''y ky ''y g'Co gtkecp'Tgi kmt { ''qh'Tgi kmytgf ''
Vgej pqmi kmu+: 'erkpkecn'uwr gtxkmqt. ''erkpkecn'eqqtf kpcvqt. ''cpf 'r tqi tco ''f ktgevqt0

Vj gug"gxcnwcvlqpu"ctg"eqpf wevgf "qp"ugrctcvg"hqto u'y ky kp"vj g"Vtclgeu{ u'u{ uvgo "r ncvlqto 0' Vj g"Enkplecn"Gf wecvlqp"Eqo r gvgpe{ "J cpf dqqm"gzrnckpu"vj ku"kp"o qtg"f gvckn "cpf "gcej " enkplecn"eqwtug"u{ mcdwu"ku"kuuwgf "vq"uwvf gpvu"cv'vj g"dgi kppkpi "qh"vj g"eqwtug0

Vq'tgegkxg'c''r cuulpi "enkplecnii tcf g."uwf gpvu'o wuv'o ggv'ij g'o kplo wo "eqo r gvgpe{"rgxgrilp" gcej "enkplecni'gxcnwcvkxg'\qqn'ugevkqp0Vj gug"gxcnwcvkqpu'y km'dg'uvqtgf 'kp''ij g'VTCLGEU U' Egpvtcnk gf "Enkplecni'Tgeqtf nggr kpi "U{uvgo "hqt"J gcnij "Gf wecvkqp"Rtqi tco u0'Rtqi tco "qhhlekcnu'ecp'ceeguu'cm'cuuguuo gpvu'yi cv'ctg'cxckrcdrg''vq'ij g'uwf gpv0Vj g'uwf gpv0Vj g'uwf gpv'y km'j cxg" tgcf/qpn{"r tkxkrgi gu'y kyi kp'VTCLGEU U0'Vj g'r tgegr vqt "\*u+"ctg"gpeqwtci gf "vq"f kuewuu" gcej "enkplecni'eqo r gvgpe{"cpf "gxcnwcvkqp"y kyi "yi gkt'uwf gpvu."qhigtkpi "eqpuvtwevkxg"etkkekuo " vq"gpj cpeg'uwf gpv'rgctpkpi 0'Vj g'Enkplecni'Uwr gtxkuqt'O WUV"grgevtqplecm("uki p''yi g'' gxcnwcvkqpu0

Uwf gpul'uj qwf "uki p" y gkt "eqo r gvgpekgu" cpf "cuuguuo gpul'chygt "tgxkgy kpi "cpf "f kuewuukpi "gxcnwcvkqpu" qt "eqo r gvgpekgu" y kyj "y g"r tgegr vqt0

Vj g'uwf gpw'ctg'tgur qpukdng'liqt'nggr kpi 'wr 'y ky ''y gkt''r tqi tguu'cpf 'o cmkpi ''cr r qkpvo gpw'' y ky ''y g'Enkplecn'Rtgegr vqt''qt'Rtqi tco 'F ktgevqt''vq'tgxkgy ''**cpf lqt'tiki p'tj g'gxcnwcvkqpu**0' Klic'uwf gpv'hcku'vq''uki p''cp''cuuguuo gpv.''y g''uwf gpv'uj cm'tgegkxg''c'| gtq'\*2+'hqt''y cv'r ctvkewrct'' gxcnwcvkqp0

Enplecnii tef gu'kpenst g'eqo r gwgpe { ''ygwkpi 0Uwf gpw'pqv'eqo r ngwpi ''y g'tgs wktgf '' eqo r gwgpekgu'hqt'cp { 'ugo gwgt 'y kni'pqv'dg'r gto kwgf ''q'gptqmikp'y g'pgzv'ugo gwgt'wpnguu'' f qewo gpwgf ''gz ygpwcwpi ''ektewo uvcpegu'qeewt0'Vj ku'ku'gzr nckpgf ''kp''o qtg'f gwckilp''Vj g'' Enplecn'Gf wecwkqp'Eqo r gwgpe { ''J cpf dqqmicpf ''y g''enplecn'eqwtug'u { mcdwu'kuwgf ''vq''gcej '' uwf gpv'cv'y g''dgi kppkpi ''qh'y g''eqwtug0'Hwty gto qtg. "uwf gpwu'y j q''j cxg''pqv'eqo r ngwgf ''y g'' o kpko wo ''tgs wktgf ''eqo r gwgpe { ''gxcnwcwkqpu''cv'y g''gpf ''qh''y g''qpg/ { gct''egtwkhkecwg''r tqi tco '' y kni'pqv'dg''r gto kwgf ''vq''cng''y g''Co gtlecp''Tgi kmt { ''qh'Tcf kqnqi ke''Vgej pqnqi kmu'\*CTTV+'' Egtwkhkecwqp''Czco kpcwkqp0

Vj g"uwf gpv'ku't gur qpukdng'hqt 'uej gf wrkpi "cpf 'mggr kpi "vj g"enkplecn'eqphgtgpeg'cr r qkpvo gpv' y kj "vj g"r tqi tco "f ktgevqt lenkplecn'r tgegr vqt0'Vj gug"eqphgtgpegu'y km'dg'uej gf wrgf "cv'vj g"gpf "qh'gcej "uguulqp0

Vj g'Enlplecn'Rtgegr vqt IRtqi tco "F ktgevqt"cuuki pu"enlplecn'tqvcvkqp"ctgcu."cpf 'uwwf gpvu"ctg"pqv" vq"tgs wguv'ur gekhle"o cej kpgu"qt"enlplecn'ctgcu0'Uwwf gpvu"ctg"gzr gevgf "\q"cwgpf "y g"enlplecn' ukwg ktgc"f gulki pcvgf "d{"y g"r tqi tco "qhhlekcn:0Cp{"tgs wguv'hqt"enlplecn'ej cpi gu"o wuv'dg" uwdo kwgf "kp"y tkklpi "\q"y g"Rtqi tco "F ktgevqt"cpf "y km'dg"gxcnvcvgf "d{"y g'lcewn{"cpf"

enkplecn'uvchhOJ qy gxgt."\j g"enkplecn'ir tgegr \qt lir tqi tco "f ktge\qt"\y km'f gekf g"\j g"\ugs \wgpeg"\qh" cp{"tg/cuuki po gpwtOU\wf gpwi'y j q"ej cpi g"enkplecn'ictgcu'y kj qw'y tk\wgp"r gto kuukqp"y km'dg" eqwp\wgf "cdugpv'cpf "tgs \wtgf" \q"o cng"\wr "\j g"f c{u''c\wgpf gf "cv'\j g"\wpc\wj qtk\ gf "enkplecn'iuk\ug0"

O cng/wr "wo g"o wuv'dg"uej gf wrgf "y kyj "y g"erkplecn'uwr gtxkuqt "qhi'y g"cr r tqr tkcvg"erkplecn'ukg" qt "ctgc"cpf "y g"r tqi tco "f ktgevqt "qt"erkplecn'ir t gegr vqt " $\theta$ Erkplecn'i ko g"o wuv'dg"o cf g"wr ."f c {" lqt"f c { ."cv'y g"erkplecn'ukg"y j gtg"kv'y cu'o kuugf 0}

Fwt lpi 'lpergo gpv'y gc yi gt < Ki'cmi'ercuugu'cv'F wng''Wpkxgtuk\{"ctg"ecpegngf. 'uwwf gpwu'ctg''pqv'' tgs wkt gf "\q''cwgpf "encuu"qt "enkplecn'yi cv'f c{0'Uej qqn'enqukpi u"ctg"cppqwpegf "qp''mqecn'tcf kq" uvcvkqpu'cpf "VX''uvcvkqpu0F WMG''cnq "qh'tgtu''qr vkqpcn'\gz v'o guuci g"cngt vu0Kpergo gpv'y gc yi gt" enqukpi u"ctg"pqv'yi g"f gekukqp"qh'yi g"Rtqi tco "Fktgevqt"qt"yi g"Enkplecn'Eqqtf kpcvqt0'Cnyi qwi j" uwwf gpwu'o c{"pggf "\q'ej gem'y kyi "yi gkt"kpuvtwevqt. "fq"pqv'cuuwo g'yi cv'f gcf nkpgu. "f wg"f cvgu." cpf "qpnkpg"rguuqpu'ctg"pqv'cp"qr vkqp0

DGTGCXGO GP V'VKO G''y kni'dg''cmqy gf 'liqt''y g''ko o gf kcyg''lco knf ''\*Gzco r ngu''ctg''ur qwug." ej knf .'r ctgpv.''qt''ukdnkpi +0Dgtgcxgo gpv''ko g''o wuv'dg''cr r tqxgf ''d{ ''y g'Enkplecn'Eqqtf kpcvqt'' cpf ''liqt''y g''Rtqi tco ''F ktgevqt0Cdugpegu''ntqo ''qy gt''Wplxgtuk{ "eqwtugu''o wuv'nqmqy ''y g'' i wkf gnkpgu''guvcdnkuj gf ''d{ ''F wng''Wplxgtuk{ ''cpf ''y g''kpf kxkf wcn'kpuntwevqtu0

Vj g'uwf gpv'ku'tgur qpukdrg'hqt'kphqto kpi ''y g'erkplecn'uksg''qt''ttgcvo gpv'o cej kpg''cuuki pgf ''vq'' y go ''kh'y g{ ''ctg''vq''o kuu'cp{ ''vko g0'Vj g'uwf gpv'o wuv'cnuq''pqvkh{ ''y g'Erkplecn'Eqqtf kpcvqt'' cpf lqt''Rtqi tco ''F ktgevqt''qh'vj g'Tcf kcvkqp''y gtcr { ''rtqi tco ''qhi'cp{ ''vko g''o kuugf 0'Kphqto cvkqp'' tgi ctf kpi ''cp{ ''o kuugf ''erkplecn'uko g'ku'ngr v'kp''y g''uwf gpvxu'hkrg0'Xgtkhecvkqp''qh'o cngwr ''vko g'' o wuv'dg''kp'y tkskpi ''cpf ''uki pgf ''d{ ''y g''erkplecn'uwr gtxkuqt0'Vj ku'uvcvgo gpv'o wuv'dg''r tgugpvgf'' vq''y g'Erkplecn'Eqqtf kpcvqt''qt''Rtqi tco ''F ktgevqt0

## O KUUR I 'ENR KE CNIF KF CE VKE 'VKO G

Uwf gpu'y j q'o kui'c'erkplecn'qt''f kf cevke''rguuqp''f c{ "qt"gzr gev'vq'dg''vctf { "o wuv'ecm'y g" crrtqrtkcvg''erkplecn'ctgc''cpf 'y g"Enplecn'Rt gegr wqt ''cpf lqt"Rtqi tco 'F ktgevqt''cv'rgcuv'y ktv{ " \*52+"o kpwgu''dgiqtg''y g''uvctv'qh'y g''erkplecn'vo g0'Vj tgg'\*5+"vctf { 'kpekf gpw'gs wcn'qpg'\*3+" cdugpeg0'Vctf kpgun'kt'<u>cpf</u> 'vko g'chygt 'vj g''erkplecn'uej gf wyf 'lwct vkpi 'vko g0'Ki'uwf gpw'licki' vq''nqmy ''y g''r tqr gt''ecm/kp''r tqegf wtg. ''y gkt''erkplecn'i tcf g'y kni'dg''cf lwwyf ''ceeqtf kpi ''q''y g'' erkplecn'i tcf kpi ''r qrke{ ''qwwkpgf 'kp''y g''erkplecn'u{ mcdwu0'Vj g''Vtclgeu{ u'u{ uvgo ''nqt''erkplecn'' tgeqtf/nggr kpi ''y kni'dg''wugf ''hqt''ōemqenkpi ''kp''cpf ''qwö'f wtkpi ''erkplecn'cuuki po gpvu''cpf ''y kni' dg''gzr nckpgf ''f wtkpi ''qtkgpvcvkqp''cpf ''kp''y g''erkplecn'eqo r gygpe{ ''ugevkqp0

C"r cuulyi "I tef g'lp"enlpleen'gf wee kqp 'ku't gs wkt gf '\q'r cuu'y g'eqwtug0'Uwf gpw'o ww'ewgpf " cm'enlpleen'red'ee kkxkkgu. 'kpenwf kpi "Rteekleg' Nedu'epf "qt kgpve kqp't qve kqpu'y t qwi j "ep $\{$ " j genj eet g'et ge 'qt' heektw $\{$ 0 $\}$ 

## I O'ENKPKECN'UCHGVI <

Hqt'O qtg'Fgvckgf 'Kohqto cvkqp.'Rrgcug'Tgfgt'vq'{ qwt '<u>ENKP KECN</u>" GF WECVKQP'EQO RGVGPE[ 'UGEVKQP'0

# <u>Hat 't cf k vkap 'r t avgevkap 'r grkekgu 'r rgcug 't ghgt 'va 'Ugevkap '\dag X\dag 'ahlvi g 'i cpf dagmivkngf "</u>\dag TCF KCVKOP 'RT QVGE VKOP 'RONKEKGU\

Erlpkecn'uchgy("gpeqo r cuugu'dw'ku"pqy'nko kgf "\q"cf o kpkurgtkpi "eqpytcuv'o gf kc."r gthqto kpi "tcf kc.\qp"\ij gtcr { "r tqegf wtgu"\wpf gt "f ktgev'uwr gtxkukqp."dgkpi "cf gs wc.\qqu "r tgr ctgf."cpf "o ckpyclpkpi "r tqhguulqpcn'cpf "kpygtr gtuqpcn'tgrc.\qpuj kr u"y kj "r ggtu."en\qqu "hcewn\{."cpf "en\qqu kqpuj kr u"y kj "r ggtu."en\qqu kqpui."hcewn\{."cpf "en\qqu kqpuj kr u"y kj "r ggtu."en\qqu kqpui."hcewn\{...\qqu kqpuj kqpuj kr u"y kj "r ggtu."en\qqu kqpui."hcewn\{...\qqu kqpuj kqpu

Vj g'uwf gpv'y j q'ku'litgs wgpvn{ "wprtgrctgf"cpf"tgs wktgu'tgrgcvgf"eqttgevkqp"qt"y j q'licku''q" eqpuwn''j g'kpuntwevqt"crrtqrtkcvgn{ "ku'eqpulf gtgf" wpuclig'kp"y g'enkplecn'ctgc"cpf "y kni'dg" rægf "qp"enkplecn'rtqdcvkqp0'Kp"gzvtgo g'ektewo uvcpegu. "y g'uwf gpv'o c{"dg'f kuo kuugf"litqo" y g'rtqi tco 0'Vj g'rtko ct{"eqpulf gtcvkqp"ku'y g'uclg'crrhecvkqp'qh'cm'curgewi'qh'tcf kcvkqp" y gtcr{.'y kj 'f ktgev'uwrgtxkukqp'cpf 'rtqi tgunkxgn{ 'o qf gtcvg'! wkf cpeg"cpf 'f ktgevkqp0

## J O'RTODCVKOP<

30' Enplecn'Uchgy(")"Uwf gpul'y j q'hckn'yq'o ggy'y g<u>'o kplo wo "gzr gewkqpul'hqt"enplecn'uchgy(" v km'dg'r megf "qp"enkpkecn'r tqdcykqp</u>0'Uwf gpyu'r megf "qp"enkpkecn'r tqdcykqp'hqt"uchgy(" xkqmylqpuly km'dg"eqwpugngf "cpf "gxcnwcyf" "cy'ngcuy'gxgt {" y q"y ggmu'kp"ceeqtf cpeg"y ky " y g"enkpkecn'eqwtug"qdlgeykxgu0'C"r tqdcykqpct {"r gtkqf "qh'gki j v'\*: +"y ggmu'y km'dg"cmqy gf" vq"f go qpuvtcyg"ko r tqxgo gpy'kp"enkpkecn'uchgy(0'Enkplecn'r tqdcykqp"y km'dg"tgo qxgf "kh" y g"uwf gpy'eqpukuygpyn("r gthqto u'cy'c"o kpko wo "uchg"ngxgn'qh'eqo r gygpe{0'C"uwf gpy" o c{"pqy'dg'r megf "qp"r tqdcykqp"hqt"enkpkecn'uchgy("o qtg'y cp"qpeg"f wtkpi "y g'r tqi tco 0'Uwf gpyu"qp"r tqdcykqp"y j q'ickn'yq"o ggy'y g"eqwtug"qdlgeykxgu'y ky "o kpko wo " eqo r gygpeg"y km'lickn'y g"eqwtug."tguwnkpi "kp"f kuo kuucn'litqo "y g"r tqi tco 0'Uj qwrf "y g" uwf gpy'f guktg"q'tg/gpygt"y g"r tqi tco ."y g{"y km'dg"tgs wktgf "yq"tgr gcy'y g"gpyktg"eqwtug" htqo "y j kej "y gtg'f kuo kuugf 0

# 40' QVJ GT'ECWUGU'HQT'RTQDCVKQP «yj ku'ikuv'ku'pqv'cm/lpenwlxg+

- c0' Wpr tqhguulqpcn'dgj cxlqt "qt "r gthqto cpeg. "cu"f ghlpgf "d{ "vj g"enkplecn'luvchh" r tgegr vqtu. "enkplecn'leqqtf kpcvqtu. "qt "r tqi tco "f ktgevqt0
- d0' Cwgpf cpeg'\*kpenwf kpi "cdugpegu."\ctf kpguul"gctn( "f gr ctwtg."cpf "o cngwr "\ko g" kphtcevkqpu'f guetkdgf 'kp"ugevkqpu'C/I +
- e0' Eqwtug'i tcf g'hguu'yi cp'<u>oEö</u>
- f 0' Y tkwgp'y qtmli tcf g'nguu'y cp'<u>oEo</u>
- g0' Ncvg'j qo gy qtm
- h0' Ncem'qh'qti cpk cvkqp
- i 0' Y j gp'c'uwf gpv'j cf 'o qtg'vj cp'vy q'\*4+'vpgzewugf 'cdugpegu

- j 0' Wprtqhguukqpen'errgetepeg
- 160 Rgtuqpen'r tqdrgo u'vj ev'ugxgtgn ("kpygthgtg"y kij "f kf cevle"qt "enkpleen't gur qpukdkrkkgu0
- 10' Kortqrgt "öecmkpi /kpö"rtqegf wtg"o c{"tguwn/kp"cp"wpgzewugf "cdugpeg0Hcknwtg"vq" uwdo k/y g"tgs wktgf "eqorgwgpe{"gzcokpcvkqpu"f wtkpi "{qwt "gpf/qh/uguukqp" eqphgtgpeg"y ky "y g"Rtqi tco "Fktgevqt"qt"Enpkecn/Rt gegr vqt 0
- m0' Qvj gt'\*cu'ur gektligf 'kp'F wng'Wpkxgtukv{ 'uwwf gpv'j cpf dqqm'cpf 'wpf gti tcf wcvg'' dwngvkp+0

C"r tqdcvkqpct { "r gtkqf "qh"gki j v'\*: +'y ggmu'y km"dg"cmqwgf "hqt"y g"uwf gpv'\q"f go qpuvtcvg" kortqxgo gpv0Vj g"gzcev'\gto u"qh"y g"r tqdcvkqp"y km"dg"ur gekhkgf "qp"y g"Tcf kcvkqp"Vj gtcr { "Rtqi tco "Uwf gpv'Eqpvcev'hqto "cpf "f wtkpi "eqpuvmcvkqp0

Vj g''yto u''y kmilipenwf g''y g''dgj cxlqtu'tgs wktgf ''\q'tgo qxg''y g''r tqdc\lqpct{'uvcwu0<u>'Ki'yi g''</u> yto u''qhi'y g''r tqdc\lqp''ctg''pqv'o gy.''y g'uwf gpv'o c{''dg''f kuo kuugf 'htqo ''y g''r tqi tco 0

C'uwf gpv'y j qug''cecf go ke'r gthqto cpeg'ku'dgnqy '97' "cv'o kf vgto "qt''y j qug''r ctvkekr cwlqp''kp'' y g'eqwtug'ku'kpeqpukugpv'y kij 'r qrkekgu'uvcvgf 'kp''y g'Tcf kcwlqp''Vj gtcr { "Uwf gpv'J cpf dqqm' y kni'dg''r rcegf "qp''cecf go ke''r tqdcwlqp0P q''uwf gpv'y kni'i tcf wcvg''qt''r tqi tguu'htqo "qpg'' ugo guvgt''vq''cpqvj gt''y j krg''qp''r tqdcwlqp0

# KO F KO KUCN<\*rkm'ku'pqv'cm/kpenwksg+'E CWUGUHQT'KO O GF KCVG'F KO KUCN<

- 30' Ki'vj g'uwf gpv'ku'f ggo gf "wpuchg'kp''yj g'enkplecn'ugwkpi "qt''wpuwkscdrg'hqt''yj g'tcf kcvkqp''
  vj gtcr { "r tqhguulqp."cu'f gvgto kpgf "d{ "vj g"gxcnwcvlqp"o gyj qf 0
- 40' F kuj qpguv{
- 50' Rquuguukqp. 'wug. ''qt ''f kurt kdwkqp''qh''o kpf/cnygt kpi ''uwduvcpegu''kp''wpkxgt ukv{ ''qt ''erkpkecri' ctgcu''qt ''y j krg''cwgpf kpi ''o ggvkpi u. ''ugo kpctu. ''qt ''eqpxgpvkqpu''cu''tgr tgugpvcvkxgu''qh''F wrg'' Wpkxgtukv{ 0
- 60' Wug''qh''cdwukxg''qt''r tqhcpg''ncpi wci g0
- 70' Dgkpi "r rcegf "qp"r tqdcvkqp"c"ugeqpf "vko g"f wg"vq"c"rceni'qh"enkplecn'uchgv{ "qt"c"yj ktf "vko g" hqt "qyj gt"r tqdcvkqpct { "tgcuqpu0
- 80' F kuenquwtg"qh"Eqphkf gpvkcn"Kphqto cvkqp"cpf "JKRCC"Xkqncvkqpu0
- 90' Cuucwn/'cpf lqt 'dcwgt { 'y j krg''cevkpi ''cu''c 'tgr t gugpvcvkxg''qh'F wng''Wplxgtukv{ 'lkp''cp { ''ecr cekv{ 0
- : 0' Hcknwtg''vq''eqo r ngvg''cp{ ''eqwtug''etksgtkc''ur gekhkgf 'kp''yj g''eqwtug''u{ mcdwu0
- ; 0' Hcknut g'\q'cej kgxg'\j g'tgs wkt gf '97' 1; 2' 'i tcf g'chygt'\j g'\dpf 'tgyguv'cwgo r \0
- 320' Hckmtg'\q'cej kgxg'c'i tcf g'qh'97' ''qt'j ki j gt'kp'c'eqwtug''qxgtcm0
- 330' Rrci ketkuo 0
- 340' Uwdo kwlpi "vj g'uco g'r cr gt "vy keg. "r wtej culpi "c'r cr gt. "qt "wulpi "y qtmihtqo "cpqvj gt" uwf gpv. "kpenwf lpi "cp{ 'C Ki gpgtcvgf 'r cr gt "etgcvlqpu0
- 350' Cp{"qyi gt"tgcuqp"uvcvgf "lp"yi g"F wng"Tcf kcvlqp"Vj gtcr {"Uwvf gpv"J cpf dqqm"qt" wpf gti tcf wcvg"dwngvlp0

## LO' NGCXG'OH'CDUGPEG<

Ki'wpliqtguggp"ektewo uvcpegu"kp"c"uwf gpvxu"iklig"kpvgtligtg"y kij "vj g"uwf gpvxu"cecf go ke" r tqi tguu. "vj g"uwf gpv'uj qwrf "f kuewuu"vj ku'y kij "vj g"r tqi tco "f ktgevqt"vq"uqnxg"vj g"r tqdrgo 0' Vj g"dguv'uqnwkqp"o c{ "dg"vq"uwdo kv'c"y tkwgp"tgs wguv'iqt"c"ngcxg"qh"cdugpeg"itqo "vj g" r tqi tco 0'Ki'vj g'uwuf gpv'ecp"tguqnxg"vj g'kuuwg."vj g{"o c{"dg"gnki kdng"vq"tgcrrn{"hqt"cf o kuukqp" vq"vj g"r tqi tco 0

## C'hgcxg'qhlcdugpeg'tij cmipqv'gzeggf 'qpg'{ gct 'hp'f wt cwlqp0

 $\label{thm:constraint} Hqt"qxgt"c"{gct."uwfgpwl'y j q'j cxg"eqo r ngvgf "c"tcf kcvkqp"y gtcr { "r tqi tco "o www'wpf gti q"cp" kpvgtxkgy "y kyj "yj g"r tqi tco "f ktgevqt"cpf "hcewn/{ "dghqtg"tgcr r n/{kpi "vq"yj g"r tqi tco 0} }$ 

## MO' TGCFOKUKOP<

Cp{"uwfgpv"y j q"y kj f tcy u"qt"ku"f kuo kuugf "htqo "y g"r tqi tco "o wuv"tgcrrn("hqt"cf o kuukqp" cpf "dg"ceegr vgf "dghqtg"dgkpi "r gto kwgf "vq"tguwo g"y gkt"uwfkgu0C"uwf gpv"o c{"dg" tgcf o kwgf "vq"y g'tcf kcwqp"y gtcr {"r tqi tco "qpn("qpeg0"

 $Tgcfo kukqp"q"igg"rtqi tco"tgs wktgu"eqo r ngwlpi "cp"crr nlecvkqp"hqt"tgcfo kukqp"cpf" o ckpvckpkpi "c"i tcf g"r qkpv"cxgtci g"qh"407"kp"eqwtugy qtm"crr nlecdng"vqy ctf "vj g"tcf kcvkqp" vj gtcr { "f gi tgg0"Vj ku"uj qwrf "dg"eqo r ngwgf "cv"ngcuv"qpg"gpwtg"ugo guvgt "dghqtg" yj g"tgs wguvgf "tgcfo kuukqp"f cvg0Tgcfo kuukqp"y km"dg"uwdlgev"vq"crr tqxcn"qh"vj g"Cfo kuukqpu"Eqo o kwgg" cpf "ur ceg"cxckredktw{0}$ 

Uwf gpw'y j q'y kj ftcy 'htqo ''j g'tcf kckqp''j gtcr { "rtqi tco ''y kni'pqv'dg'eqpulf gtgf 'hqt" tgcf o knikqp''y kj qw'eqo r gykpi "cp"gzk/kpvgtxkgy **0 K/ki'tj g'tiwf gpwi't gur qpuldkk { 'tq" uej gf wg'cp'gzk/kpvgtxkgy 0** 

KPFKXKFWCNU'FKUOKUUGF'HQT''NCEM'QH'ENKPKECN''UCHGV['YKNN'PQV'DG''TGCFOKVVGF0

PO'OPG'Y KNN'DG'TGCFO KVVGF'O QTG'VJ CP'QPEG0

NO' <u>CFO KUKOP 'DI 'VT CPUHGT </u>< Ku'pqv'cr r rkecdrg="ugg' \tcpuhgt "gzr rcpc \kqp. "r ci g";

## O OY KVJ FTCY CN<

Vq'hqto cm{ "ftqr "c'eqwtug."{qw'o wuv'hqmqy "yj g'qhhleg"r qnle{ "qwxlpgf 'lpr'yj g'F wng" Wpkxgtukx{ "wpf gti tcf wcvg'dwngxlp"cpf 'luwdo kv'yj g'tgs wguv'\q'yj g'Tgi kuxtctøu'Qhhleg0

Vj g"Uej qqn'qh'O gf kekpg"Dwngvkp"qwnkpgu"r qnkekgu"tgi ctf kpi "tgi kntcvkqp."ej cpi gu."tghwpf u." y kij f tcy cnu'htqo "kpf kxkf wcn'eqwtugu."cpf "y kij f tcy cnu'htqo "vj g'uej qqn<" j wr u<lo gf kekpg@lwngvkpu@f wn@f wn@

j wrudlo gfuej qqnffwng(gfwlgfwecvlqplj gcnj/rtqhguulqpu/gfwecvlqp/rtqi tco uluwvfgp√" ugtxlegulqhhleg/tgi kntct luwvfgp√ugtxlegu

Hi{qw'b ww'v kaj f tcv 'ltqo 'tej qqqldghqtg'eqo rmykpi 'ti g'ltgo gwgt.'{qw'bi qwf "qlltekcmf 'v kaj f tcv 'ltq' 'rct vekrcvkpi 'kp'cp' ½zk'kpvgt xkgv 'cpf 'l gwkpi 'c' v kaj f tcv cm' lnto 'ltqo 'vi g'Olfteg'qh'vi g'Tgi kwtct 'vq'tgegkxg'c' I TCFG'OH'6Y (bi 'V) g''rtqi tco "fktgevqt"cpf "qvj gt"tgs wktgf "rtqi tco "r gtuqppgn'uj qwf "uki p"vj g"y kaj f tcv cn'hqto "crrtqrtkcvgnf (O'Ki"{qw'rgcxg''vj g''uej qqn'qt''uvqr "cwgpf kpi "c"encun' v kaj qw'ylltekcmf "v kaj f tcv kpi .'{qw'v knit gegkxg'c' I TCFG'OH'6H'b' kp''y g''eqwtug\*u+"{qw'y gtg"gptqngf 'kp0' Tghgt''vq''y g'F wng''wpf gti tcf wcvg"dwngvkp0

Cp{"uwf gpv'y ky f tcy kpi "htqo "c'tcf kcvkqp" y gtcr {"eqwtug" uj qwf "wpf gtuvcpf "y cv'y g{"o wuv" crrn{ 'hqt'tgcf o kuukqp" vq" y g'rtqi tco ."y j kej "ku'uwdlgev' vq" tgxkgy "d{"y g'Cf xkuqt{" Eqo o kwgg0Rngcug" ugg 'ugevkqp" MD

## P0' CVVGPFCPEG<

Uwf gpw'ctg"gzr gevgf "vq"cwgpf "cm'ercuugu"cpf "erlpkecn'cpf "rcdqtcvqt { 'uguukqpu0 ENKP KECN</br>
ENKP KECN
Hqt 'O qtg"F gvckrgf "Kohqto cvkqp"Tgi ctf kpi "Erlpkecn'Cwgpf cpeg"cpf "Erlpkecn' Ctgc"vgrgr j qpg"pwo dgtu. "r rgcug"tghgt "vq"vj g"
ENKP KECN'GF WECVKOP "EQO RGVGP E[" RTQI TCO "UGEVKOP 0'Rci g"55

Uwf gpul'o wuv'cttkxg"qp"\lo g."dg"tgcf { "\q"y qtm"cpf "rgcxg"qp"\lo g0

Uwf gpwl'o c { "trc { "r cw'y gkt "we j gf wrgf "t grgcug" wo g "vq "qdugt x g "c "wpks wg "qt "lpht gs wgpv" r tqegf wtg. "dw'y g { "o ww' lpht to "y g "r tqi tco "f ktgevqt "cpf "y gkt "r tgegr vqt "qh'y gkt "lpvgpvkqpu0" Kp" ceeqtf cpeg y ky "y g "r cygw' LTEGTV "tgeqo o gpf cvkqpu. "uwf gpwl "ctg" pqv'r gto kwgf "vq" dg" lp" y g "enlpkech'ctgc" lp "cp" qhhlekch'ecr cek { 0

Ceeqtf kpi "\q"\j g"Enlplecn'Gf wec\kqp"Eqo r g\vgpe{ "Rtqi tco "\uge\kqp."cp{ "o kuugf "enlplecn'qt" redqtc\vqt { '\vko g'o \underline{"o kf g'\underline{"cf c{/\underline{"dcu\underline{"och kqt} | cf g'\underline{"cf c{\underline{"cf c{\underline{"cf c} | cf \underline{"cf cf cf | cf \underline{"cf cf cf cf | cf \underline{"cf cf cf cf | cf \underline{"cf cf | cf \underline

C'enkplecn'cdugpeg'hqto 'o wuv'dg'uwdo kwgf 'qp''y g'hktuv'encuu'f c{ 'hqmqy kpi 'y g'cdugpeg0

FIF CEVIE 'ENCUUGU'CPF'NCD'UGUUQPU<'Ki'cp''cdugpeg''qeewtu. 'vj g''eqwtug''kpuvtwevqt'' o wuv'dg''pqvkhkgf ''dghqtg''vj g''ercuu''qt''rcd''uguukqp''uvctvu0

## VGNGRJ QPG'PWO DGTUHQT'EQPVCEVIPI 'HCEWNVI <

Vj ku'kphqto cvkqp"y km'dg"i kxgp"qw'f wtkpi "vj g'hktuv'y ggm'qh'qtkgpvcvkqp"cpf "cv'vj g'f kuetgvkqp" qh'kpf kxkf wcn'kpuvtwevqtu"qt"r tgegr vqtu0

## Q0' DWEMNGI 'CO GPFO GPV<

Vj g"Hoo kn{ "Gf weckqpcn'Tki j wu'cpf "Rtkxce{"Cev"cnnq"npqy p"cu"HGTRC"qt"yj g"Dwemng{" Co gpf o gpv."ku"c"hgf gtcn'mcy "r tqvgevkpi "vj g"r tkxce{"qh'uwwf gpv"gf weckqp"tgeqtf u0'Vj g"mcy " cr r nkgu"vq"cm'uej qqnu"vj cv'tgegkxg"hwpf u'wpf gt "cp"cr r nkecdng"WUUF gr ct vo gpv"qh'Gf weckqp" r tqi tco 0'Kp"ceeqtf cpeg"y kij "HGTRC."F wng"Wpkxgtukx{"i gpgtcm("r gto kuu'uwwf gpvu"vq"kpur gev' vj gkt "gf weckqp"tgeqtf u'cpf "r tqvgevu"vj g"kphqto cvkqp"htqo "f kuemuwtg"vq"vj ktf "r ctvkgu"y kij qww' vj g"uwwf gpvvu"eqpugpv0'Hqt"o qtg"f gvcknu."ugg"vj g"Qhhkeg"qh'vj g"Wpkxgtukx{"T gi knxtct)u"y gdukxg" cv'j wr u<a href="http://wwwf.gpv/tgeqtf.u/tguqwtegu!hgtrc0">http://wwwf.gpv/tgeqtf.u/tguqwtegu!hgtrc0</a>

# RO' EQO O WP KE CDNG'F KUGCUG'CP F 'KO O WP K CVKOP 'RONKE | <

F wng "Wpkxgtuk{ "Rqrke{"cpf "Rtqegf wtgu "Wpf gt 'y g "Hoo kn{ 'Gf weckqpcn'Tki j vu'cpf "Rtkxce{" Cev y wrudhwf gpulf wng Qf wly gmpguuluwf gpyj gcnj lko o wpk ckqpul

Pqty 'Ectqrkpc''Ucvg''Ncy '\*I gpgtcri'Ucvwgu'È'352C/3746379+'tgs wktgu'y cv'crn'uwwf gpuu'gpvgtkpi "eqngi g''r tgugpv'c''egtvkhecvg''qh'ko o wpk| cvkqp''y cv'f qewo gpvu''y g{ ''j cxg'tgegkxgf ''crn'ko o wpk| cvkqpu'' tgs wktgf ''d{ ''ncy 0'Y j krg''{qwt 'uvcvg''qt''eqwpvt{ ''qh'qtki kp''o c{ ''j cxg'f khlgtgpv'ko o wpk| cvkqp'' tgs wktgo gpvu.''{qw'o wuv'eqo r n{ ''y ky ''Pqty' 'Ectqrkpc''ncy u''cpf 'F wng''tgs wktgo gpvu0

## Vj g'hanay kpi 'ko o wpk cwlapu'ct g't gs wkt gf 'hat 'F wng'wpf gt i t cf wc wg'uwwf gp wk

PCO G'QH'XCEERPG
PWO DGT'QH'F QUGUTGS WRTGF"

J gr c\kku'D'\ki'dqtp''chgt'\918; 6'\( '\hqt''cmij gcnj '\he\kgpeg'\hu\kgpu+\)
4''qt'\5'\F qugu.'\f gr gpf \kpi '\qp'\y g''dtcpf

O geurgu 4'F qugu

Ogpkpi qeqeecn'CEY [ "\*kh'dqtp"chygt"31314225+ 3"Fqug"\*chygt"38yj "dktyj fc{+

O wo ru 4'F qugu"

5"Fqugul\*kh"{qwpi gt'\j cp"3: "{gctu"

Rqrkq qrf +

Twdgmc 3'Fqug

5"F qugu"\*qpg"VF CR"kp"yi g"icuv'32"

VF IF VCRIVF CR {gctu+

 $Xct legmc \verb|`*kh'| dqtp''chiyt''613123''cpf'' l'iqt''cm''j gcnj'' l'uekgpeg''$ 

uwf gpvu+ 4"F qugu"qt "r qukkxg"KI "\ksgt

Uwf gpul'y j q'y kıj "vq'tgegkxg"cf f kkqpcrl'xceekpgu. "kpenwf kpi "hnw"J RX. "cpf 'O gpkpi kku"D. "qt "pggf " engctcpeg"hqt "uj cf qy kpi "cpf "xqnwpvggt kpi . "uj qwrf "y ck/"vpvkrl'chygt "Qevqdgt "3"vq"uej gf wrg"cp"cr r qkpvo gpv" y kıj "Uwf gpv"J gcnj 0

J GCNVJ 'UEKGPEG'UVWFGPVU'UJ QWNF'TGHGT'VQ'VJ GKT'TGURGEVKXG" KO O WPK, CVKQP'HQTO U.'Y J KEJ 'ECP'DG'CEEGUUGF'D[ 'ENKEMKPI 'VJ G'\$UVGRU'HQT'' KO O WPK, CVKQP'EQO RNKCPEG\$'NKPMCDQXG0

Cm'tcf kcvkqp" i gtcr {"uwf gpu"ctg" tgs wktgf "vq"r tqxkf g"r tqqh'qh'y g"hqmqy kpi <"y g{"o wuv" dg"ewttgpv'y kyj "y gkt" ko o wpk cvkqpu"cpf "j cxg"c"eqr {"qh'y gkt" ko o wpk cvkqp" tgeqtf "qp" hkng0Gcej "uwf gpv'o wuv'r tqxkf g'y g"tcf kcvkqp" y gtcr {"r tqi tco "y kyj "ewttgpv."xcnkf."cpf" uki pgf "f qewo gpvcvkqp" qh'ic" r j {ukecn'gzco "qp" y g"hqto "r tqxkf gf "d{"y g"r tqi tco 0'V j g" r j {ukecn'y km'r tqxkf g"tgcuqpcdrg" cuuntcpeg" y cv'y g"uwf gpv'ecp" r gthqto "y g"f wkgu" tgs wktgf "qh'ic" uwf gpv'tcf kcvkqp" y gtcr km0

\*Ugg<<u>VGEJ P KECN'UVCP F CTF U'IY QTMGT'EJ CTCEVGTKUVKEU'QH'C'TCF KCVKQP</u>" <u>VJ GTCRKUV</u>0/Rci g''%8

Gcej ''uwf gpv'o wuv'hqmqy ''uvcpf ctf ''r tgecwkqpu''guvcdrkuj gf ''d $\{$  ''y g'Egpvgtu'hqt 'F kugcug'' Eqpvtqn''cpf ''Rtgxgpvkqp''\*EFE+0

Uwf gpw"gzr qugf "\q"c"eqo o wpkecdrg"f kugcug"cv"y g"erkpke"uksg"y tqwi j "cp{"uqwteg."uwej "cu" pggf rg"uvkemı."r cvkgpv"eqpvcev."qt"eqpvcev'y kyj "eqpvco kpcvgf "uwr r rkgu."o wuv'ko o gf kcvgn{" kpliqto "y gkt "erkpkecri'uwr gtxkuqt."y g"erkpkecri'r tgegr vqt."qt"y g"r tqi tco "f ktgevqt0"Vj g"uwwf gpv" o wuv'cnuq"eqo r rgvg"cmi'r cr gty qtmi'y g"erkpkecri'uksg"qt"chhkrkcvg"tgs wktgu0

htqo "entplecn'cuuki po gpvu'cpf "lqt 'vj g'encuutqqo 0'Vj ku'f gekukqp'y km'dg''dcugf ''qp''vj g''cf xkeg'' qh''o gf kecn'gzr gtvu0Tgcf o kuukqp'y km'pqv'qeewt''wpvkn'vj g''uwf gpv'r tqxkf gu''vj g''Tcf kcvkqp'' Qpeqnqi { ''F gr ctvo gpv'y kvj ''r tqqh''vj cv'vj g{ ''ctg''pq''nqpi gt''eqpvci kqvu0

## S 0' I TCF WCVKQP 'ENGCTCPEG<

Cmluwf gpul'o wu'uj qy "ENGCTCP EG'dghqtg''y g'Rtqi tco "F ktgevqt''ecp''r tqeguu'y g'' tgs wktgf 'hqto u'hqt''y g''CTTV'TGI KUVT[ 'GZCO 0'Vj ku'y kmlkpxqmxg''eqo r ngwpi 'cml'y g'' pgeguuct { "eqo r gwpelgu''cpf 'cml'qy gt''cecf go ke''tgs wktgo gpw0'C''hgy "o qpy u''dghqtg''y g'' r tqi tco "gpf u.''y g''tgi kuvtct''y kml'pqwh{ "{qw'y cv'y g''uwf gpwl'o wuv''crrn | 'hqt''i tcf wcwqp0'Vj g{"o wuv''eqo r ngwg''y ku''cumly ky kp''y g''w g'y kpf qy ''r tqxkf gf 0F wtkpi ''y g'hktuv'y ggmlqh'Cwi wuv.'' qpeg''y g''r tqi tco ''yto ''eqpenwf gu.''y g'tcf kcwqp''qpeqmi { "f gr ctvo gpv'y kml'y quv'c''r kppkpi "egtgo qp{.''y j gtg''gcej ''uwf gpv'y kml'tgegkxg''c''egtwhecvg''kp''tgeqi pkwqp''qh''y gkt''cej kgxgo gpv0

# TO' EGNN'RJ OPGI'IUO CTV'Y CVEJ 'RONKE | <

Egmir j qpgu'y km'pqv'dg'wugf "f wtkpi "encuu'cpf "o wuv'dg'mgr v'qwv'qh'uki j v'qhi'yi g'kpuntwevqt0Khi'yi g" kpuntwevqt'uggu'c'egmir j qpg."yi g'uwwf gpv'o c{"dg"f kuo kuugf "htqo "yi g"encuu'cpf "dg'uwdlgev'vq" r tqdcvkqp"qt"f kuo kuucn0Egmir j qpgu'ctg"P QV'vq"dg'wugf "kp"yi g"enkplecn'ctgc0Uo ctwy cvej gu'o c{"dg'wugf "gzenwukxgn("vq'vgm'kko g0Khic'uwwf gpv'ku'qdugtxgf "wukpi "yi g"kpvgtpgv'kp"encuu'qt"yi g"enkple." yi g'uwwf gpv'o c{"dg'f kuo kuugf "htqo "encuu'qt"ugpv'j qo g'htqo "yi g"enkple0

Vj g'ehpkecht tgegrvqt'b ww'dg'p qwlligf 'llic' 'lwwf gpv'] cu'cp 'go gti gpe{'ij cv'b c{'tgs wltg" eqpwev'cv'ij g'ehlpke0Vj g'f gelulqp 'lu'cv'ij g'r tgegrvqt)u'f kuetgwlqp0Uwf gpvu'lij qwrf" f kueqwtci g'lt kgpfu'cpf 'go r nq{gtu'lt qo 'lpkkcwlpi 'eqpwev'f wt kpi 'ehlpkechj qwtu 'ezegry'kp" vi g'ecug'ali'cp' go gti gpe{0

## U0' UGZWCN'J CTCUUO GP V'RONKE[

i wruttrgdekguff wng@f wtrgde{ tuzwcno kuegpf wev/rgde{ 1

Ugzwen'j eteuno gpv'ku'c'hqto 'qh'o kneqpf wev'vj ev'wpf gto kpgu'vj g'kpwgi tkk{ 'qhi'tgrevkqpuj kr u0'K' wpf gto kpgu'o qterg''epf 'kpwgthgtgu'y ky ''y g'r tqf wevkxkk{ 'qhi'ku'xkevko u''epf ''y gkt'r ggtu0'Cm' uwwf gpvu'o wuv'dg''emqy gf ''vq''ngetp'kp''ep''gpxktqpo gpv'htgg'htqo 'wpuqnkekgf ''epf ''wpy greqo g'' ugzwen'qxgtwtgu0'Ugzwen'j eteuno gpv'vengu'xetkqwu'hqto u0'Ki'ku'f grkdgtevg''qt'tgr gevgf '' wpuqnkekgf ''xgtden'eqo o gpvu. ''s wgunkqpu. ''tgr tgugpvevkqpu. ''qt''r j {ukeen'eqpveevu'qh'ep'kpvko evg'' pewtg''yj ev'etg''wpy greqo g''q''yj g'tgekr kgpv0'Kt'o e{ ''kpenwf g'eevkqpu'uwej ''eu<

- "'' Ugzwcm(/qtkgpvgf 'xgtdcn'onkffkpi o''qt''cdwug
- "" Uwd vrg'r t guuwt g'hqt 'ugz wen'e e kx kv{
- "" Rj {ukecn'eqpvcev'uwej "cu'r cwkpi ."r kpej kpi ."qt "eqpuvcpv'dtwuj kpi "ci ckpuv'cpqyj gtøu" dqf {
- "
  F go cpf u'hqt 'ugzwcn'hcxqtu. 'ceeqo r cpkgf 'd { 'ko r nkgf 'qt 'qxgtv'r tqo kugu'qh' r tghgtgpvkcn'vtgcvo gpv'qt 'vj tgcvu'eqpegtpkpi 'vj g'uwwf gpvku'uvcwu

Ugzwen'j eteuuo gpv'ku'e'r tqj kdkgf 'r teekeg'y j gp<

30' Uwdo kuukqp"\q"uwej "eqpf wev'ku"o cf g"gksj gt "gzr rkeksn( "qt "ko r rkeksn( "c"\gto "qt" eqpf kskqp"qh"c"uwsf gpvøu"cr r tckucn

- 40' Uwdo kuukqp"vq"qt"tglgevkqp"qh"uwej "eqpf wev'd { "cp"kpf kxkf wcn'ku'wugf "cu'vj g"dcuku" hqt"enkplecn'cuuki po gpvu'cpf "i tcf kpi "etksgtkc
- 50' Uwej "eqpf wev"j cu"y g"r wtr qug"qt "ghigev"qh"wpt gcuqpcdn( "lpvgthgt lpi "y ky "cp" kpf kxkf wcnzu "ngctpkpi "qt "et gcvkpi "cp" kpko kf cvkpi ."j quvkrg."qt "qhigpukxg" gf wecvkqpcn gpxktqpo gpv

Y j krg"F wng"Wpksgtuks{)u'tef keskqp"yi gter { "rtqi teo "f qgu"pqv"kpsgpf "vq"tgi wresg"uwsf gpsu)" eqpugpuwen'uqeken'kpsgteeskqpu. "eqpf wev'eqpuskwskpi "ugzwen'j eteuno gpv"y km'pqv'dg"vqngtesgf 0' Eqo r nekpsu"qh'ugzwen'j eteuno gpv"kpxqnskpi "o kusug"qh'qpgøu"qhhkeken'r qukskqp"uj qwrf "dg" o ef g"qtem("cpf 'hqmqy gf "wr "kp"y tkskpi "vq"yj g"rtqi teo "f ktgesqt"ko o gf kesgn(0

Dgecwug"qh'f khigtgpegu'lp'uwf gpuu)'xcnwgu'cpf "dcemi tqwpf u."uqo g'lpf kxkf wcnu'o c{ 'hkpf 'kx'' ej cmgpi lpi "'vq'tgeqi plk g''yj gkt''qy p''dgj cxkqt''cu''ugzwcn'j ctcuuo gpv0''Vq''tckug''cy ctgpguu''qhi' eqpf wev''yj cv'o c{ "dg''eqpuntwgf "cu''ugzwcn'j ctcuuo gpv."y g''o c{ 'lpeqtr qtcvg''ugzwcn'j ctcuuo gpv'' cy ctgpguu''tckpkpi 'lp''tcf kcwlqp''yj gtcr { 'encuugu0

# VO' KPHGEVKOP'E OP VT ON'RT GE CWKOP UK

Ucpf ctf "r tgecwkqpu"hqt "kplige kqp"eqpxqn"ctg"guugpxkcn"kp" i g"j gcnj "hkgrf 0"Vj g{ "o wuv'dg" wugf "y j gpgxgt "gzr quwtg" vq"dqqf "qt "dqf kn{ "hnwlf u"ku"r quukdng0Ucpf ctf "r tgecwkqpu"y kni'cnq" r tqygev'qpgugnh'htqo "qyj gt "kplige kqwu"qti cpkuo u. "uwej "cu"j gr cykku0Cf j gtgpeg" vq" j g" wpkxgtucni'r tgecwkqp" i wlf gnkpgu"hknyf "dgnqy "eqwrf "ucxg" {qwt "nlhig<" J cpf ng"cmi'r cykgpw)'dnqqf" cpf "dqf kn{ "hnwlf u"cu"khi yj g{ "ctg"r qygpykcm{ "kplige kqwu0

- 30'  $\mathbf{Y}$   $\mathbf{cuj}$  ' $\mathbf{j}$   $\mathbf{cpf}$   $\mathbf{u}$ 'dghqtg"cpf "chigt"cm'r cukgpv'qt"ur geko gp"eqpvcev."gxgp"y  $\mathbf{j}$  gp"i m $\mathbf{x}$ gu"ctg" wugf  $\mathbf{0}$
- 40' Wug'r tqegf wtgu''y cv'o kpko k g''ur tc{kpi .''ur ncuj kpi .''ur cwgtkpi .''cpf 'i gpgtcwkqp''qh'' f tqr ngwl'qh''kphgewqwu''o cwgtkcn0
- 50' I maxgu'lij qwrf "cny c { u"dg"y qtp"y j gp" y gtg" ku"r qvgpvkcn"eqpvcev"y ky "dmqqf" cpf "dqf { " uwduvcpegu0
- 60' Y gct "c"**i qy p**. "cr tqp. "uwti kecn'ecr u"qt "j qqf u. "cpf "uj qg"eqxgt u"y j gp"r quukdrg='ur ncuj kpi " y kj "dnqqf "qt "dqf { "uwduvcpegu"ku"gzr gevgf 0
- 70' Y gct "r tqvgevkxg"**g{ gy gct 'cpf 'b cuml**kh'ur ncwgtkpi "y kyj "dmqqf "qt "dqf { "uwduvcpegu"ku" r quukdng0
- 80' Cm'i cto gpw'uj qwrf "dg"tgo qxgf "cu'uqqp"cu'r quuldng lh'ir gpgytcygf "d{ "r qygpylcm{ "lphgeylqwu"o cygtlcri)'Rrgcug'f q"pqy'vcng"y go "j qo g"yq"y cuj 0P qylh{ "{ qwt "enkplecn" uwr gtxluqt "lh'eqpyco lpcylqp"qeewtu0
- 90' Rrceg'wugf 'u{tkpi gu'ko o gf kcvgn( 'kp'c'pgctd{ 'ko r gto gcdrg'eqpvckpgt0<u>PGXGT''</u> TGECR.'TGO QXG.'QT'O CP KRWNCVG''VJ G'PGGF NG'KP'CP[ 'YY C[ 0
- : 0' Rrceg'eqpvco kpcvgf 'uj ctr u'kp''cr r tqr tkcvg''eqpvckpgtu0
- ; 0' Vtgcv'cm'rkpgp''uqkrgf 'y ky 'drqqf ''qt''dqf { ''uwduvcpegu''cu''kphgevkqwu0
- 320'Gc kpi .'f tkpmkpi .'uo qmkpi .'crrn(kpi "equo gkeu"qt"nkr"dcm .'cpf "j cpf nkpi "eqpvcev'ngpugu" ctg"rtqj kdksgf "kp"ctgcu"yj cv'o c{"dg"gzrqugf" 'vq"dmqqf" cpf "dqf kn("hnwkf u0
- 330'Uqtg'hqqf "cpf "f tkpmlkp"ctgcu"pqv'uwuegr vkdrg"vq"gzr quwtg"vq"drqqf "qt"qvj gt"r qvgpvkcm( "lphgevkqwu"o cvgtkcnu0

340'Ur gelo gpu'qh'lphgevlqwu'o cvgtlcnu'uj qwrf 'dg'cr r tqr tlcvgn( 'hcdgrgf 'cpf 'r rcegf 'lp'hgcm/r tqqh'eqpvclpgtu0

Cm'gs whr o gpv'cpf 'y qtinhpi 'uwthcegu'uj qwrf 'dg'f geqpvco kpcvgf 'chvgt 'eqpvcev0

360' Kni'cp"gzr quwt g"kpekf gpv'qeewtu'\* Mg0"c"pggf rg"uwkem"ur rcuj "qh'idmqf."qt"gzr quwt g"vq"dqf {"hmwkf u+."ko o gf kcvgn("hmwj "vj g"chhgevgf "ctgc"y kij "uqcr "cpf "y cvgt"cpf 'hmwj "o weqwu" o go dtcpgu"y kij "y cvgt"qt"c"ucnkpg"uqnwkqp0'Ko o gf kcvgn("chygt"y cuj kpi "qt"tkpukpi."pqvkh(" {qwt"enkplecn'kpuvt wevqt "qt"r tgegr vqt "cpf "eqo r rgvg"cp"kpekf gpv'tgr qtv'cv'vj g"enkplecn' hcekrk (00 cmg"c"eqr {"qh'vj ku'tgr qtv'vq"uwdo kv'vq"vj g"r tqi tco "f ktgevqt"hqt"r gto cpgpv'' r rcego gpv'kp"uwxf gpv'hkrgu0

370'Qpn("uwf gpwl'y gctkpi "c'r tqr gtn("hkwgf "VD"o cum'ctg'r gto kwgf "vq"r tqxkf g'r cwgpv'ectg" vq"cevkxg"VD'r cwgpwl'y kij "vj g'r gto kwlqp"qh'vj g"cuwki pgf "enkplecnhceknk(0

# WO' LTKGXCPEG

# RTQEGFWTG'CPF'FWG'RTQEGUU

C'uwf gpv'f kuuc kuhkgf ''y kij ''i jgkt'i tef g'y kni'wktk g''i g''r tqegf wtgu'hqt'uwf gpv'i tef g''er r geni'eu'' qwrkpgf ''kp''F wng''Wpkxgtukv{ ''r qnke{ 0'Vj g''r qnke{ ''ku''nqeevgf ''qp''ij g''Wpkxgtukv{ ''y gdukxg''ev'' jwrusileeguuf wngof wttgs wuwuli tkgxcpegul

## Fkuetko kpcykap'( 'J ctcuuo gpv

F wng'r tqj kdku'f kuetko kpcvkqp"cpf "j ctcuuo gpv'dcugf "qp"ci g."eqnqt."f kucdkrk{ ."i gpf gt."i gpf gt" gzr tguukqp."i gpf gt "kf gpvkv{ ."i gpgvke kphqto cvkqp."pcvkqpcn'qtki kp."tceg."tgrki kqp."ugz "\*cu"cuuki pgf "cv" dkty + "ugzwcn'qtkgpvcvkqp."qt"xgvgtcp"uvcwu"kp "ku"go r m{o gpv'r tcevkegu"cpf "gf wecvkqpcn'r tqi tco u"cpf "cevkxkkgu0Ugg"yj g"Rqrke{"qp"Rtqj kdkvgf "F kuetko kpcvkqp."J ctcuuo gpv."cpf "T grevef "O kueqpf wev0

[ qw'j cxg''y g'tki j v'vq'tckug'c'eqpegtp''qt''uwdo kv'c''eqo r nckpv'tgi ctf kpi "j ctcuuo gpv'qt'f kuetko kpcvkqp0' [ qw'cnnq'f qpøv'j cxg''vq''fqmqy "cp{"õej ckp"qh'eqo o cpf ö''vq''f q''uq''ô "{qw'ecp''ur gcm'vq''cp{qpg''kp''QKG." cp<u>''OKG''Nckuqp."</u>qt''cp{"uwr gtxkuqt''qt''o cpci gt''kp''{qwt''f gr ctvo gpv.'r tqi tco ."qt''qhhkeg''cdqww''{qwt'' eqpegtp0'Y g''ctg''cnnq''j crr {''vq''cpuy gt''s wguvkqpu''cdqww'F wng'r qnkekgu''qt''f kuewuu''qyi gt''eqpegtpu''{qw'' o c{"j cxg0'Qh'eqwtug."{qw'ecp''eqpuwnv'r gqr ng''qt''ci gpekgu''qwukf g''qh'F wng''cv''cp{"vko g''f wtkpi "yj g'' rtqeguu0

# Ugzwcn'O kuegpf wev

<u>Uszwen'o kueqpf wev'</u>t głigtu''\q'em'hqto u'qh'ugzwen''qt''i gpf gt/deugf 'j etcuuo gpv.''ugzwen'qt''i gpf gt''
xkqngpeg.''ugzwen'gzr mkwekqp.'tgrekqpuj kr ''xkqngpeg''\*f qo gukle''xkqngpeg''cpf 'f ekpi ''xkqngpeg+.''epf ''ugz/
qt''i gpf gt/deugf ''uvemkpi 0'Cm'hqto u'qh'ugzwen'o kueqpf wevô y j gyj gt'eqo o kwgf ''d{''c'uwf gpv.'heewn{."
uvehh ''qt''qyj gtuô etg''r tqj kdkygf ''ev'F wng0'Ugg''yj g<u>''Rqrke{ ''qp''Rtqj kdkygf ''F kuetko kpekqp.''J etcuuo gpv.''</u>
epf 'Tgrewf''O kueqpf wev0

[ qw'j cxg''y g'tki j v'vq'tckug''c'eqpegtp''qt''uwdo kv'c'eqo r nckpv'tgi ctf kpi 'ugzwcn'o kueqpf wev0[ qw'cnuq'' f qpø'/j cxg''vq''hqmy ''c'õej ckp''qh'eqo o cpf ö''vq''f q''uq''ô "{ qw'ecp''ur gcm'vq''y g'F wng''Wpkxgtukx{ ''Rqnkeg'' F gr ctvo gpv.''cp{qpg''kp''QKG.''cp<u>''OKG''Nkckuqp.</u>"qt''cp{''uwr gtxkuqt''qt''o cpci gt''kp''{ qwt''f gr ctvo gpv.'' r tqi tco ."qt''qhhkeg''cdqw''{ qwt''eqpegtp0'Y g''ctg''cnuq''j cr r { ''vq''cpuy gt''s wgunkqpu''cdqw'F wng''r qnkekgu''qt'' f kuewun''qy gt''eqpegtpu''{ qw'o c{''j cxg0Qh''eqwtug.''{ qw'ecp''eqpuwnv''r gqr ng''qt''ci gpekgu''qwulkf g''qh'F wng'' cv''cp{ ''vko g''f wtkpi ''yj g''r tqeguu0

Ki'{qw'dgrkgxg''{qw'ctg''dgkpi ''uwdlgevgf ''vq''ugzwcn'o kueqpf wev''d{"c'F wng''wpf gti tcf wcvg.''i tcf wcvg.''qt'' r tqhguukqpcn'uwf gpv.'fqp)v'j gukcvg''q''i gv'kp''vqwej ''y kj ''y g'F wng''Qhhleg0

## KP XQNXKP I "RTQI TCO "HCEWNV[ IENKP KECN"UVCHHIRTGEGRVQTU

i wrudlakeft wngOgf wli gy/y g/y gtmlego r nckpw/cpf/egpegtpul

## Y j cv'j crrgpu'y j gp'QKG't gegkxgu'c't grqt vA

QKG"t gegkxgu"t grqt xu"yj t qwi j "qprhpg"t grqt xhpi "ft qo "t gur qpuhdng"go rnq{ggu"cpf "t gfigtt cnu0

- "' C'tgrtgugpvc\kxg'htqo ''y g'QKG'eqpvcevu'\y g'rctv\ 'pgi c\kxgn\ 'ko rcevgf 0
  - ~ÁF gr gpf kpi "qp" yi g"pcwtg" qh'yi g"tgr qtv'cpf "dcugf" qp" yi g"kphqto cwkqp"r tqxkf gf "d{" yi g" pgi cwkxgn("ko r cevgf "r ctv(." yi g"tgr tgugpvcwkxg" o c{"kphqto "yi g"pgi cwkxgn("ko r cevgf "r ctv(" qh'qt" ko r ngo gpv'eqphkf gpwcn'tguqwtegu'cpf kqt"uwr r qtwkxg" o gcuwtgu'\*g0 0" ceeqo o qf cwkqpu. "pq/eqpvcev'qtf gtu. "ej cpi gu" kp" uej gf wrg. "gve0+0'kti'yi g"ukwcwkqp" kpxqnxgu" o cwgtu'qwukf g"qh'QkGou'ueqr g. "QkG" y knitghgt" yi g" ko r cevgf "r ctv(" "q"cpqyi gt 'tguqwteg." uwej "cu'J wo cp"Tguqwtegu. "yi g"FI U."qt" yi g"Qhhkeg" qh'Cwf kx. "Tkunicpf "Eqo r nkcpeg." co qpi "qyi gtu0
- "" Cp'**kpvcng'hqto** 'ku'uwdo kwgf 0
- "'' Cunguno gpv'dgi kpu0
  - ~ÁKpxguki cvqt'i cy gtu'kphqto cvkqp0
  - ~ÁC "o ggvkpi "y ky "y g"ceewugf Itgur qpf gpv'ku"cttcpi gf "y j gp"crrtqrtkcvg0

Æ gr gpf kpi "qp" yj g"pcwtg" qh" yj g"tgr qtv." c"tghgttcn" q"qpg" qh" yj g"hqmqy kpi "eco rwu" rct ypgt u'o c{"cnq" qeewt" cv" yj ku"r qkpv<

AOhhleg'qh'Uwf gpv'Eqpf wev

ÁF wng'Rankeg

A wo cp'Tguqwtegu

~ÁKphqto cn'kpvgtxgpvkqp"cpf "enqug" kphqto cn'tguqnvkqp" ô "ugg<u>"Rqrkekgu" ("Rtqegf wtgu+"</u>qt" rtqeggf "vq"c"hqto cn'kpxguvki cvkqp

C'uwf gpv'y kj "cp"cecf go ke'i tkgxcpeg"y kj "y g"r tqi tco "hcewn{"y kn'uwdo kl'ij g"i tkgxcpeg"\q" yj g"Rtqi tco "F ktgevqt"y kj kp"yj tgg"\*5+"f c{u"qh"yj g"kpekf gpv0Kh"yj g"i tkgxcpeg"r gtvckpu"\q"yj g" Rtqi tco "F ktgevqt."kl'o wuv'dg"hqty ctf gf "\q"yj g"F gr ctvo gpv'Ej cktr gtuqp"y kj kp"yj tgg"\*5+" f c{u"qh"yj g"kpekf gpv0

Vj g'r tqi tco "f ktgevqt" y km'cwgo r v'vq" tguqnxg" y g'ukwcvlqp" y kj "y g'uwf gpv'cpf "rcewn{" o go dgtu0 Kh'wpcdng." y g'i tkgxcpeg" y km'dg" rqty ctf gf "wukpi "y g'crrtqrtkcyg" rhpnx" j wrudlwpf gti tcf wcygdwngykpulf wng lef wlr qrkekgulcecf go ke leecf go ke/eqpegtpu

Uwf gpv'P qp/Cecf go ke'I tkgxcpeg'Eqo o kwgg'I wkf grkpgu0'Vj ku'r qrke { "ecp"dg"hqwpf "qp" y g" Wpkxgtukv{ "y gdukvg"cvj wr u<lqkgf wmg0gf wlj qv./y g/y qtmleqo r mkpw/cpf/" eqpegtpuleqo r mkpv/r tqeguul

C'uwf gpv'y kij "c'pqp/cecf go ke'i tkgxcpeg'y kij "enlpkecn'uvchh'y kn'uwdo ki'yi g'i tkgxcpeg''vq''yi g'' Enlpkecn'Kpurtwevqt''y kij kp''yi tgg'\*5+"f c{u''qh''yi g''kpekf gpv0'Kh''yi g'i tkgxcpeg''eqpegtpu''yi g'' Enlpkecn'Kpurtwevqt''qt''r tgegr vqt.''kv'y kn'idg''uwdo kwgf ''vq''yi g''Rtqi tco 'F ktgevqt0 Vj g"Enkplecn'lkpurtwerqt" y km'io ggv'y kij "vj g"uwrf gpv'cpf "enkplecn'urchhi'o go dgt" y kij kp"ugxgp" "9+" f c{u"qhi'vj g"kpekf gpv'vq"t guqnxg" y g"ukwcvkqp0'kki'vj g"uwrf gpv'ecppqv't guqnxg" y g"ukwcvkqp." y g"uwrf gpv'y km'uwdo kv'y g"i tkgxcpeg" wukpi "vj g"hpm'cdqxg0

# X0ENIP IE CN'UCHGV| 'CPF'TCFICVIOP'RTQVGEVIOP'RTCEVIEGU'CPF" RQNIE IGUK

Wukpi ''y g'PGY 'RQNKE[ 'HQTO.''cm'uwf gpwl'y km'dg'r tqo r vn( 'kphqto gf ''qh'CP[ "EJCPIGU'QT'PGY 'TWNGU'y cv'crrn( ''vq'y ku'ugevkqp0

Uwf gpwi'y kniiqmy "cmitcf kckqp"r tqvgekqp"r tcevkegu"cpf "r qnkekgu"lqt" y go ugnxgu. "y gkt" eqy qtngtu. "j gcnj ectg"vgco "o go dgtu. "y g'i gpgtcnir wdnke. "cpf "r ckgpw0"Vj ku"kpenvf gu"r tqr gt" wug"qhi'r gtuqppgnitcf kckqp"o qpkqtkpi "f gxkegu. "emukpi "y g"f qqt"vq"y g"nkpgct "ceegngtcvqt" tqqo "f wtkpi "y gtcr gwke"r tqegf wtgu. "cpf "wukpi "cpf "cr r n kpi "uchgv "f gxkegu0Dghqtg" qdugtxkpi "qt"r ctvkekr cvkpi "kp"c"o ci pgvke"tguqpcpeg"lo ci kpi "\*O TK"r tqegf wtg. "y g"uwf gpv" o wuv'eqo r ngvg"y g"uco g"uetggpkpi "r tqeguu"cu"c"r cvkgpv'wpf gti qkpi "cp"O TKgzco "cpf "j cxg" eqo r ngvgf "cp"O TKuchgv "o qf wrg0Kij cpf nkpi "tcf kqcevkxg"o cvgtkcnu. "r tqr gt"uchgv "r tqvqeqnu" y knildg"wugf 0

Kp"cffkkqp."cm"crrtqrtkcvg"kpukwkqpcn"uchgv{."httg."cpf"kphgevkqp"eqpvtqn"o gcuwtgu"uj qwrf "dg"eqpukfgtgf"rctv"qh"{qwt"tgurqpukdkkv{"kp"fgrkxgtkpi "uchg"cpf"eqorgygpv"rcvkgpv"ectg0

Cu'c'uwf gpv'y gtcr kuv."{qw'ctg'tgur qpukdng'hqt'wpf gtuvcpf kpi ''y gug'r tcevkegu'cpf 'r qnkekgu'uq'' y cv'y g{ "dgeqo g'cp'kpurkpevkxg'eqo r qpgpv'qh'{qwt'r tqhgunkqpcn'gzr gtvkug0

## 30' FOUKO GVT['DCFI G<

Vj g"f quko gvt {"dcf i g"\*r gtuqpcn"f quko gvgt+"kuwgf "f wtkpi "vj g"htuv'y ggm"qh"qtkgpvcvkqp0Vj g" dcf i g"vj qwf "dg"y qtp"htqo "vj g"eqmct "vq" j g"y ckw"vq"r tqxkf g"gzr quwtg"kphqto cvkqp"cpf " cr r tqzko cvg"y j qrg/dqf {"gzr quwtg0'K'y km"dg"y qtp"y j gpgxgt" j g"uwf gpv"ku"gzr qugf "vq" kqpk kpi "tcf kcvkqp"f wtkpi "uej gf wgf "j qwtu"kp"y g"Enkplecn"Hcektk{"qt"y g"F wng"Wpkxgtukx{" tcf kcvkqp"y gtcr {"rcdqtcvqt{0Vj g"F wng/kuwgf "f quko gvgt"o wuv"dg"y qtp"f wtkpi "vj g"j qwtu"y g" uwf gpv"ku"uej gf wgf "vq"dg"cv"c"Enkplecn"Hcektkx{"qt"y g"F wng"tcf kcvkqp"y gtcr {"rcdqtcvqt{0' Vj g"F vng'kcektkx{"qt"hqt"cp{"qvj gt"lqd0[ qw"o wuv" y gct"c"ugr ctcvg"f quko gvgt "kh"go r m{gf "kp"c"tcf kcvkqp"hkgrf 0Vj ku"dcf i g"uj qwrf "pqv"dg"nghv"kp" {qwt"xgj kerg."kp"ctgcu"qh"gzvtgo g"j gcv."kp"f ktgev"uwprki j v."ko o gtugf "kp"y cvgt."qt"vcngp" y tqwi j "cktr qtv'ugewtkx{"ej gemr qkpvu0

F quko gvt { "dcf i gu"pggf "vq"dg<

EJ CPI GF'S WCTVGTN['d{"yi g"f ktge ktqp"qh"yi g"f gr ctvo gpv"r j {ukeknv"cuuki pgf "vq" dcf i g"gzej cpi gu"qt "cu"f ktge vgf "d{"yi g"r tqi tco "f ktge vqt 0F grkps wgpv"r kemiwr "qt"tgwttp"o c{" tguwnv"kp"c"nqy gtkpi "qh"{qwt "enkpkecni tcf g0Nquv"cpf kqt"f co ci gf "f quko gvt {"dcf i gu"o wuv"dg" tgr qtvgf "kp"y tkkpi "ko o gf kcvgn("vq"yi g"Enkpkecni'r t gegr vqt "qt"Rtqi tco "F ktge vqt 0Vj g" f co ci gf "dcf i g"o wuv"dg"tgwttpgf "vq"yi g"f gr ctvo gpvcn'tcf kcvkqp"uchgv{ "qhhkegt"y kyi kp"y q"\*4+" uej qqn"f c{u"hqmqy kpi "yi g"pqvkhkecvkqp0Vj g"uwf gpv"o c{"kpewt"c"xgpf qt/f gvgto kpgf " tgr ncego gpv"hgg"hqt"yi g"dcf i g0

P q'uwf gpv'ku'r gto kwgf "cv'yj g'enkplecn'ukgu"qt "redqtcvqt { "y kyj qw'c "ewttgpv'f quko gvt { "def i g." y j kej "ku'pqv'pgi qvkcdng0

C'uwf gpv'y j q'j cu'<u>xqnwpvct kf 'kphqt o gf</u> '\j g'Rtqi tco 'F ktgevqt''cpf '*Enlipkecn'Eqqtf lipc vqt* '' \*kp''y tkkipi +'qh'j gt'**rtgi pcpe{ '**'y kni'dg''kuwgf ''c'ugeqpf 'f quko gvt { ''dcf i g'\q'dg''y qtp''cv'\j g'' y ckw0'Rngcug''tghgt'\q''Ugevkqp'6''dgnqy 'hqt''cf f kkqpcn'kphqto cvkqp0

## 40' FOUKO GVT[ 'DCFI G'TGROTV<

Cu'c'tcf kc\kqp"\j gtcr kıv."tgeqtf u'qh'ceewo wrc\ygf "tcf kc\kqp"\gzr qu\ktg"\y kn'dg"\qpi qkpi "
y tq\wi j q\w'\{q\kt'\ht\gk\kqp\gr pg'r o r m\{gf "cu'c'\tcf kc\kqp"\y gtcr kıv."\{q\kt'\go r m\{gt "y kn'\nggr"
y ku'\tgeqtf 0'Vj ku'\qee\wr c\kqpcn'\tcf kc\kqp"\gzr qu\ktg'\ku'\cf f gf "\q'\y g'\tgeqtf .'\y j kej "dgi cp"\y j gp"
\{q\w'\y gtg"c'\u\wf gp\0'Ki'\{q\w'\y gtg''r tgxkq\u\m\\" o qp\kqtgf "\nt"\qee\wr c\kqpcn'\tcf kc\kqp"\gzr qu\\tg."
\{q\w'\uj q\wf "\phqto "\y g'\tgr Rtqi tco "F ktge\v\tau0

Vj g'f quko gvt { "dcf i g't gr qtv'ku'ngr v'qp'hkrg'kp" yj g'TUQ "qhhkeg0'K'ku'' yj g'uwf gpvøu" tgur qpukdkrkv{ "'q'xkgy "yj gkt "tgr qtv'0Cpf" { qwt "tgr qtv'ecp"dg'hqwpf "cv." j wr u

Uwf gpul'y knitctgn[."khi'gxgt."qdvkp"rgxgnu'qhi'gzr quwtg'\j cv\'y qwf "ecwug'eqpegtp0'Vj g" tcf kc\kqp"\y gtcr {"r tqi tco "dgrkgxgu'\p"nggr kpi "tcf kc\kqp"\q"\y g"ny guv\r quukdrg''ngxgni\p" ceeqtf cpeg"y kyj "\y g'CNCTC"r t\pekr rg'\\\\ tcf kc\kqp"\gzr quwtg'\uj qwf "dg \\
\textsur\_\te

## 50' \_ õNCDOTCVOT[ ö'RONÆKGU'TWNGU'CPF'I WÆGNÆGU

Rqrkelgu. "twgu. "cpf" i wkf grlpgu"o wuv'dg "guvcdrkuj gf "vq"gpuwtg" y cv'uwf gpvu. "hcewn{."cpf" kppqegpv'd{ucpf gtu"ctg"pqv'gzr qugf "vq"tcf kcvkqp"y j gp"wukpi "yj g"gpgti k gf "hcdqtcvqt{"ctgc0' Vj g"vgto "oncdqtcvqt{ö'y knltghgt"vq"cp{"gs wkr o gpv'qt"ctgc"y j gtg"uwf gpvu"cpf "kpuntwevqtu"ctg" gpi ci gf "kp"rgctpkpi. "ttgcvo gpv."qt"uko wrcvkqp"cevkxkkgu0Vj g"rcdqtcvqt{"ku"cxckrcdrg"hqt" uwf gpvu"vq"wug"wpf gt"yj g"f ktgev'uwr gtxkukqp"qh"hcewn{0

- 30' Vj g"uwf gpv'ecppqv'ko ci g"cpqvj gt "r gtuqp"kp" y g"rcdqtcvqt { 0'Vj g"rcdqtcvqt { "ku'wugf 'hqt" yccej kpi "r wtr qugu"qpn( "cpf "uj qwf "pqv'dg"wugf "hqt"f kci pquku"qt "ttgcvo gpv0
- 40' Uwf gpw'y j q'gzr qug'cpqyj gt'r gtuqp''ctg''uwdlgev''q'<u>lo o gf kcyg'f kuo kuucrll</u>tqo ''y g'' tcf kcykqp''y gtcr {'r tqi tco 0
- 50' Ko ci gu'ctg''qpn( 'cmqy gf 'y ky 'r gto kuulqp'htqo 'y g'tcf kcvlqp'y gtcr { 'hcewn{0
- F quko gvt { "dcfi gu"o wuv"dg"y qtp"f wtkpi "tcf kcvkqp"r tqegf wtgu"cpf "ko ci kpi 0

- 70' Uwf gpwl'o ww't gwtp "gs wkr o gpv'cpf "vgcej kpi "ckf u'vq 'vj gkt "f guki pcvgf 'nqecvkqp0
- Kgo u'ui qwf 'pqv'dg'r reegf 'qp''y g'hqqt''cu''y g{ 'r tgugpv'c''vtkr r kpi 'j c | ctf 0
- 90' Hqqf "cpf "f tlpmu"ctg"pqv"cmqy gf "kp"vj g"rcdqtcvqt {0
- : 0' S works{ "cuuwtopeg"gs wkr o gpv'y km'pqv'dg"tgo qxgf "htqo "vj g"rodqtovqt { "qt"ercuutqqo 0
- ; 0' Uwf gpwl'wukpi "vj g'redqtevqt { "qwwlf g"vj g'tgi wretn( "uej gf wrgf "redqtevqt { "vko gu'<u>o ww'cum</u>" hqt"r gto kwlqp0

# 60' RTGI PCPE[ 'RONKE[ <

\*Ugg'Ej cr vgt "XKKOT gr tqf wevkxg'J gcnij "qh"vj g<u>"F wng'T cf kevkqp"Uchgv("O cpwen</u>0

## i wrudly y y Ouchgy of wngOgf wlukgulf ghcwn/lhkgultcf o cpOrfh

Vq"r tqvgev"ci ckpuv"r tgpcvcn"tcf kcvkqp"gzr quwt g"tkumu"vq"vj g"f gxgmqr kpi "go dt {q"cpf "hgwu."uvcvg"cpf "hgf gtcn"tcf kcvkqp"t qvgevkqp"tgi wrcvkqpu"cpf "vj g"F wmg"CNCTC"\*Cu"Nqy "Cu"Tgcuqpcdn{ "Cej kgxcdng+" r qrke {"r tguetkdg"vj cv"vj g"vqvcn"f qug"gs wkxcrgpv"vq"vj g"go dt {q"qt"hgwu"qh"c"f genetgf "r tgi pcpv"y qtngt" uj cm"pqv"gzeggf "722"o kmt go "\*7"o Ux+"f wtkpi "vj g"r gtkqf "qh"i guvcvkqp0

Ki'c'uwf gpv'dgeqo gu'r tgi pcpv''y g''uwf gpv'o c{"xqmpvctkn{"f genetg''y g''r tgi pcpe{0Vj g'r tgi pcpe{" f genetcvkqp'o ww'dg'kp'y tkkpi 'y ky 'Vy g'Go rm{gg'QeewrcvkqpcnlJ gcnj 'c'pf 'Y gmpgu'\*GQJ Y +" d{'eqo rmykpi 'c'eqpht gpvkcnlF genetcvkqp'qh'Rt gi pcpe{'lnto 0Qpeg''y g''f genetcvkqp'ku''o cf g.''y g'' uwf gpv'y kn't gegkxg'htqo 'Yy g'Tcf kckqp''Uchgv{'F kxkukqp''\*TUF+<

- "" Cp"gxcnvcvkqp"qh"yj g"tcf kcvkqp"j c| ctf "htqo "gzvgtpcn"cpf "kpvgtpcn"uqwtegu=
- Eqwpugrkpi "tgi ctf kpi "o qf khlecvkqpu"qh'\gej pks wg'\j cv'y km'j gm "o kpko k| g"gzr quwtg" vq'\j g"hgwu=
- "" C'hgven'f quko gvgt.'kh'errtqrtkevg0

Vj g"f genetgf "r tgi pepv'uwf gpv'y km'j exg"ugxgten'qr vkqpu'deugf "qp" y gkt "kpf kxkf wen'pggf u"epf "r tghgtgpegu<

Á Uj g'o c{ 'eqpvkpwg'kp''yj g'r tqi tco 'cu'ku'y kyj qwv'cp{ 'ej cpi gu0

Á Uj g'o c{ 'eqpvkpwg' vj g'Rtqi tco 'y ky 'o qf khkecvkqpu'kp' vj g'Enkpkecn Cuuki po gpvu0

ÁUj g'o c{ 'tgs wguv'c 'rgcxg'qh'cdugpeg'htqo 'ErkpkecrlCuuki po gpvu'cpf lqt''y g'gpvktg''
Tcf kcvkqp''Vj gtcr { ''Rtqi tco ''ewttkewnvo 0

Aktgi pcpe{"f genetckqp"ecp"dg"y kaj f tcy p"cv"cp{"klo g"d{"uwdo kwkpi "c"ngwgt" tguekpf kpi "yj g"r tgxkqwu"f genetckqp0

 $\label{eq:controller} Cp"go\ r\ m\{gg"y\ j\ q"j\ cu"f\ gemtgf\ "vj\ gkt"r\ tgi\ pcpe\{"vj\ cmlkphqto\ "GQJ\ Y\ "cpf\ "vj\ g"TUF\ "kh"vj\ gkt"r\ tgi\ pcpe\{"vj\ cu"gpf\ gf\ "hqt"cpf\ "tgcuqp0$ 

C'inwf gpy'ecppqy'dg'eqpulf gt gf 'c'rt gi pcpy't cf lewlqp'y qt ngt 'lli'yi g'y t lwgp'xqnwpwct { "f genet cwlqp'ku'pqy'iwdo lwgf 0

# 70' TCFKCVKOP'UCHGVI 'OHHKEGTUK

Ej w'Y cpi /F kxkukqp'F kt. 'Qee'( ''Gpx''Uchgv{/QGUQ Tcf kc.kqp''Uchgv{ <u>''ej wty cpi B f wng(lyf w'</u>30, 3; 088: 053: 9

# I GPGTCN'RTQI TCO 'KPHQTO CVKQP

## CO' CTTV'GZCO IP CVIOP 'ENGCTCPEG<

j wrudly v y OcttyOqti Ir ci gulgetp/cttvetgf gpykenJetgf gpyken/qrykqpultcf keykqp/yi gter {

Gcej 'i tcf wcvg''qh''c'tcf kcvkqp''yi gtcr { ''egtvkhlecvg''r tqi tco ''o wuv'eqo r ngvg''yi g''engctcpeg'' r tqegf wtg''f ghkpgf ''d{ ''yi g''Tcf kqmi ke''Vgej pqmi { ''Rtqi tco 0

## Vj ku'engctcpeg'kpenwf gu<

- Hwrhkmo gpv'qh'f gi tgg'tgs wktgo gpvu'hqt''y g'Egtvkhlecvg'kp'Tcf kcvkqp''Vj gtcr {0
- 40' C''eqo r ngwgf ''f gi tgg''cwf kv'o wuv'dg''qp''hkrg''y kj ''y g''Rtqi tco 0
- 50' F qewo gpvcvlqp"d{"enkplecnihcewn{"xgtkh{kpi "eqo r ngvlqp"qhi'cmienkplecnitgs wktgo gpvu." kpenwf kpi "vj g"eqo r gvgpe{"r tqi tco ="tgwtp"qhi'wpkxgtukv{"cpf "enkple"kf gpvkhlecvlqp"dcf i gu." r gtuqpcnif quko gvgtu"y kyj "j qnf gtu."cpf "eqo r gvgpe{"( "mqi "dqqmn0Cf f kklqpcm{." i tcf wcvlpi "uwf gpvu"o wuv'tgxkgy "cpf "uki p"cmlf quko gvt{"eqo r gvgpekgu'dghqtg"crrtqxcni hqt"vj g"CTTV"gzco 0
- 60' Engctcpeg'htqo ''y g'F wng''Dwukpguu''Qhhleg. 'y kj ''pq''qwuvcpf kpi ''dkmu0
- 70' Ergctcpeg'htqo ''y g'F wng''Nkdtct{ ''\*pq''qxgtf wg''dqqmı+0
- 80' Rctvkekrevg'kp'vj g'Rkppkpi 'Egtgo qp{'wpnguu'rtkqt''crrtqxcn'ku''qdvckpgf''htqo ''rtqi tco ''qhhekcnu0

## DO' CFXHQT1CFXHGG'TGUROPUHDKNKYKGUK

Gcej "uwf gpv"y km"j cxg"cp"cf xkuqt0F wg"\q"qwt"cpvkekr cvgf "uo cmlkpkkcnleqj qt vu."\j g"rt qi t co " f kt gevqt "y kmlugt xg"cu"\j g"rt ko ct { "cecf go ke"cf xkuqt0

# Vj g"cf xkuqt"y km<

- 30' Cuukıv'yi g'uwf gpv'\q<
  - c0' Guvcdrkuj "cpf "gxcnvcvg"r gtuqpcn'qdlgevkxgu0
  - d0' Gxcnwcyg'r tqi tguu'kp''yi g'r tqi tco 0
- 40' O cłpyckp''c 'r gtuqpen'hkrg'hqt 'geej ''cf xkugg0
- 50' Eqphgt'y ky 'y g'uwf gpv'cu'pgeguuct { 'vq'i wkf g'cpf 'cuukuv'y ky 'cecf go ke'cpf 'enkpkecn' i tqy y '' ( 'f gxgmr o gpv0

## Uwf gpw'y km<

- 30' Hqmqy "vj g"r tqi tco "ewttlewnwo "vq"o ggv"vj g"tgs wltgo gpwu"hqt"vj g"tcf levlqp"vj gtcr {" egtvl/tlecvg0
- 40' Ugrh/gxcnxcvg'r tqi tguu'cpf 'qdlgevkxgu0
- 50' Eqphgt'y kj ''y g''cf xkuqt''cu''pggf gf 0
- P q vkh{ "{qwt "cf x kuqt "qh"cp{ "ej cpi gu"vq"{qwt "pco g. "cf f tguu. "qt "r j qpg"pwo dgt0
- 70' Ej gem'F wng)u'go ckn'tgi wrctn{.''cu'tgeqo o gpf gf 'f ckn{0
- 80' O cng'cpf 'nggr 'cr r qkpvo gpui'y kj 'cf xkuqt0

#### E0' ERTIDNUEGTVKHÆCVKOP<

Cm'uwf gpuu'ctg'tgs wktgf "\q"o ckpvckp'ewttgpv'egt \khlecvkqp'htqo "\y g'Co gtkecp'' gctv' Cuuqekcvkqp''qt''y g'Co gtkecp''Tgf 'Etquu'cu'c'j gcnj 'r tqxkf gt0'Uwf gpuu'ctg'tgur qpukdng'hqt'' mqecvkpi "cp''cr r tqr tkcvg''encuu'kh'kv'ku'pqv'uej gf wrgf "f wtkpi "c'f kf cevke''qt 'enkplecnif c{0Ghqtvu'' y kni'dg'o cf g''q'uej gf wrg'c'ERT''egt \khlecvkqp''encuu'f wtkpi ''\y g'r tqi tco )u'hktuv'y ggnñu+0

Gcej "uwf gpv'ku't gs wktgf "vq'r tqxkf g'r tqqh'qh'ERT "egt wkhecvlqp"vq"y g'Rtqi tco "F ktgevqt."y j q" y kmi'nqi "kv'kpvq"Vtclgeu{u0Hcknwtg"vq"r tqxkf g'r tqqh'cpf lqt"o ckpvckp"ewttgpv'egt wkhecvlqp"y kmi' tguwnv'kp"y g'uwf gpv'dgkpi "tgo qxgf "htqo "vj g"cuuki pgf "enkpke0Tgo qxcn'htqo "vj g"enkpke"y kmi' cf xgtugn{"chhgev'y g"uwf gpv@u"i tcf g"cpf "cwgpf cpeg'tgs wktgo gpw0Gcej 'hwwf gpv'o wuw'' o clpvckp'ewttgpv'ERT'egt wkhecvlqp'y j kg'gpt qngf 'kp'y g'r tqi tco 0

Ret'CTTV'tes wit go gpwu-CTTV'Tcf kevlqp"Vj gtcr { "Ur gelthe"Tgs wit go gpwu'60408"I gpgtcn' Revlgpv'Ectg<Ecpf kf evgu'o ww'dg"ERT"egt wit kgf "cpf "f go qpwt evg"eqo r gvgpeg"kp"vj g" tgo ckpkpi "ukz"r evlgpv'ectg"cevkxkkgu0Vj g"cevkxkkkgu"uj qwrf "dg"r gthqto gf "qp"r evlgpwu" y j gpgxgt"r quwkdrg. "dw'r tqegf wtgu"o c { "dg"f go qpwt evgf "kp"c"erkpkeen'red "gpxktqpo gpv'kh" uvevg"qt"kpwkwwkqpen'tgi wrevkqpu'r tqj kdkv'ecpf kf evgu'htqo "r gthqto kpi "vj g"r tqegf wtgu"qp" r evlgpvu0

# FO' EQOOWPKECVKOP <

Uwf gpwl'ctg"j ki j n( "gpeqwtci gf "\q"ej gem'\j gkt"uwf gpv'go ckn'qhvgp0'Kpeqo kpi "\grgr j qpg'ecmu" vq'uwf gpwl'ctg"f kueqwtci gf "gzegr v'kp"go gti gpekgu0Tghgt '\q"\j g"egm'r j qpg'r qrke { 'kp"Uge\kqp" T0

- GO' HRP CPEKCN'CKF < "ugg"F wng"wpf gti tcf wcyg"dwngylp+"\*Ugg"uej qnctuj kr "eqpytcev+
- HD' HWPFTCKURI < Eqqtf kpcvg''y kij ''yj g''Rtqi tco ''F ktgevqt0

# I 0' J GCNVJ 'P UWT CPEG<

Cm'uwf gpuu'o wuv'o ckpvckp"cf gs wcvg"o gf kecn'kpuwtcpeg"y j krg"gptqmkpi "cv'F wng"Wpkxgtukx $\{0[qw']$ o wuv'eqo r ngvg"vj g"gptqmo gpv'qt"y ckxgt"r tqeguu'y knj kp"vj g"qr gp"gptqmo gpv'r gtkqf 0Hcknwtg"vq"f q" uq"y km'tguwnv'kp"f grc $\{gf$  "eqxgtci g"qt"c"ej cti g"hqt"kpuwtcpeg" $\{qw'\}$ f q"pqv'pggf0

F wng"qlhgtu"c"Uwf gpv'O gf kecn"kpuwtcpeg"Rncp"\*UO kR+"f guki pgf "\q"o ggv'\j g"pggf u"qh'uwf gpvu" y kij qw'kpuwtcpeg"qt 'kpcf gs wcwg"kpuwtcpeg"eqxgtci g"kp"\j g"F wtj co ."P E. "ctgc0Rngcug"tgxkgy "{qwt" eqxgtci g0Y j kng"kv'o c{"dg"ceegr vcdng"hqt"c"y ckxgt. "kv'o c{"pqv'qhhgt"\j g"uco g"ngxgn'qh'ugewtk\{"cpf" eqxgtci g"cu"qwt"uwf gpvlr ncp. "y j kej "ku"ur gekhkecm\{"vcknqtgf"\q"o ggv'\j g"pggf u"qh'F wng"uwf gpvl0' j wr u<lluwf gpvlf wngQf wly gmpguuluwf gpvj gcnj lkpuwtcpeg1

F wng'Wpkxgtukx{ "f qgu'pqv'cuuwo g'tgur qpukdktx{ "hqt 'uwxf gpvuø'j gcnj 'kp''yi g''gxgpv'qh'kmpguu" qt''kplwt { . "pqt 'hqt''o gf kecn'dkmu'kpewttgf 'f wtkpi "enkplecn'f wx{ "qt "qp''eco r wu0'Y tkwgp''r tqqh'qh'' kpf kxkf wcn'kpuwtcpeg'ku'tgs wktgf ''dghqtg'r ctvkekr cvkpi ''kp''enkplecn'gzr gtkgpegu0

#### J GCNVJ 'TGS WKTGO GP VUK

S 0' Cp{"uwfgpv"y j qug"j gcnyi "ej cpi gu"chwet "gpvgtkpi "'y g"r tqi tco ."chhgevkpi "'y gkt "cdkrk\{ "vq"o ggv y g"r j {ukecn't gs wkt go gpvu. "o c{"dg"cungf "vq"y ky f tcy "cpf "o wuv'eqpvcev"y g"r tqi tco "f ktgevqt" ko o gf kcvgn{ "hqt"c"f kuewuukqp0Rrgcug"ugg"uggvkqp"R<<u>EQOOWPKCDNG'F kUGCUG'CPF"</u>

KOOWPKCVKOP'RONKE[ ≺Rci g"%88

# Ю' <u>CPPWCN'J OPOTU</u>

## Qww.cpf kpi 'Uwf gpv'Cy ctf <

C'ugrgev'uwf gpv'o c{ "dg"y g"tgekr kgpv'qh'y ku"cy ctf 0'Etkgtkc'hqt'ugrgevkqp'kpenwf g'rgcf gtuj kr ." eqqr gtcvkqp."cpf "eqpvtkdwkqp'vq"y g'tcf kcvkqp'y gtcr { "r tqi tco "cpf "F wng"Wpkxgtukv{0' Enkplecn'r tgegr vqtu'cpf "hcewn{ 'y kn'xqvg"qp"y ku'cy ctf "dghqtg"y g'r kppkpi "egtgo qp{0

## MO' KPEKFGPV1CEEKFGPV'FOEWOGPVCVKOP<

Y kij kp'46'j qwtu'qh'cp'kpekf gpv'qt'ceekf gpv'qeewttkpi "cv'F wng''Wpksgtuk{ "qt"c"enkplecn" hekkk{ ."uwf gpwi'o wuv'uwdo kv'y tkwsp'f qewo gpwckqp''vq''yi g'Tcf kckqp''Vj gtcr { "Rtqi tco "heewn{ 0'Ki'r tqi tco "heewn{ "ctg''wpcxckredrg."yi g'kpekf gpv'qt''ceekf gpv'f qewo gpwckqp''uj qwf "dg''uwdo kwgf "vq'yi g'f gr ctvo gpv'ej ckt)u''cf o kpkrvtcvkxg''cunkuvcpv0'Vj g'kphqto cvkqp''kpenwf gf "kp" yi ku'f qewo gpwckqp''uj qwf "kpenwf g''yi g'hqmqy kpi "f gwkru<"Y j q. "Y j { ."Y j cv. "Y j gtg. "Y j gp." cpf "Y kpguu'kphqto cvkqp."cu''cr r nkecdng0

j wrudluwf gpwlf wng(gf wli gv/cuukucpeg ltgrqtv/cp/kpekf gpvl" j wrudlheektkkguff wng(gf wluchgv| lkpekf gpv/kplwt{/ceekf gpv/tgrqtvkpi 1

## NO' O CNRTCEVÆG'ÆPUWTCPEG<

Fwng'Wpkxgtukv("cpf"Fwng'Wpkxgtukv("J gcnj "U(uvgo "tgvckp"c"EGTVKHKECVG"QH" NKCDKNKV[ "KP UWTCP EG"hqt"Crnkgf "J gcnj "Uwf gpw0"Vj g'uwf gpw0"pco gu'y kni'dg"cf f gf "vq'yj g'Kpuwtcpeg'O cpci gt."Fktgevqt."cpf "Enlpkecn'Tkun'O cpci go gpv0"

## O 0' PCO GICFFTGUURJ OPG'%EJ CPI G<

C'pco g."cfftguu."qt"rj qpg"pwo dgt"ej cpi g'y km'dg"tgrqtvgf"rtqo r vn{ ''vq'vj g'Rtqi tco " Fktgevqt0

## PO' REPPEPI 'EGTGO OP[ <

Vj g'r lpplpi 'egtgo qp{ 'qeewtu'chgt'cm'f kf cevle'cpf 'enlplecn'y qtm'lu'eqo r rgvgf .'cu'tgs wltgf 'hqt''y g'egtvlrhecvg'lp''Tcf lcvlqp''Vj gtcr { 'eqpegpvtcvlqp0'K'y km'vcng'r rceg''qp''y g'hktuv' Vj wtufc{ 'qh'Cwi wuv0'Cm'luwf gpwi'ctg'tgs wltgf ''q'r ctvlekr cvg'lp''y g'tgj gctucn'cpf ''y g'r lpplpi '' ugtxleg0

## Q0' RTOHGUKOPCN'OTI CPK CVKOPUK

Uwf gpwi'y kni'lqkp''r tqhguukqpcni'qti cpk ckqpu''vq''r tgr ctg'hqt''y gkt'hwwtg''ectggtu0'Rctvkekr ckqp'' j grr u'r tgr ctg''uwf gpwi'hqt''hwwtg''r tqhguukqpcnii tqy yj "cpf "f gxgrqr o gpv."chqtf kpi "yj go " ceeguu''vq''rgctpkpi "gzr gtkgpegu''y tqwi j "ugo kpctu."o ggvkpi u."cpf "r wdrkecvkqpu0'Kphqto cvkqp'' cpf "gptqmo gpv'y kni'dg''j cpf rgf "f wtkpi "yj g'hktuv'y ggni'qh''yj g''qtkgpvcvkqp''uguukqp0

Vj g'qti cpk cvkqpu'kpenxf g<

#### 30' POTVJ 'ECTONIPC'TCFKONOI KECN'UOEKGVI '\*PEUTV-

Cm'uwf gpw'ctg'gpeqwtci gf 'vq'lqkp'PECET'cpf 'cwgpf 'vj g'cppwcn'gf wecvkqpcn' eqphgtgpeg'kh'hgcukdng0j wr u<br/>vly y y (beutv0tti 1

40' Co gt lecp'Uqeley( 'qh'Tcf lqmi le'Vgei pqmi lam'\*CUTV+< Cm'uwf gpuu'y km'lqlp''yi g CUTV'cu'uwf gpv'o go dgtu0'Uwf gpuu'ctg"gpeqwtei gf "\q"crrn( "hqt"\yi g"Uwf gpv' Ngcf gtuj kr'F gxgmr o gpv'Rtqi tco 0'Uqo g"dgpghkuu'kpenwf g"ceeguu'\q"ctvkergu." lqwtpcnu. "r tqhguukqpcn'f gxgmr o gpv'qrrqtwpkkgu. "cpf 'tgi knvt { "gzco "eqwtugu0"

Cuuki po gpvu'cpf 'tgxkgy 'o qf wrgu'o c{ 'dg'cuuki pgf 'htqo 'vj g'uwf gpv'ugevkqpu0' j wr ulv y y @utv@ti !Nqi kp

- $\begin{array}{ll} \textbf{S 0'} & \underline{\textbf{UO QMMPI.'GCVMPI.'CPF'FTMPMPI}} < & \textbf{Rgt'F gr ctvo gpv'cpf'F wng'J gcnj''U} \\ & \textbf{uvgo r qn'e} \\ & \frac{\textbf{y_uvu} + \textbf{y_uv_{uvg} yr wu}}{\textbf{yr qn'e} + \textbf{yuv_{uvg} yr wu}} \end{array}$
- TO' UVWF GP V'J GCNVJ 'UGTX NE GUK' wrudluwf gpwlf wng (2f wly gmpguuluwf gpyj gcnij 1

# UU' UVWFGPV'GORNO[OGPV<

 $\label{thm:condition} Uwf gpw'ctg''pqv'gpeqwtci gf ''q''j qrf ''qwwkf g''lqdu.''dw''ctg''pqv'rtqj kdkxgf ''htqo ''y qtmkpi 0' J qy gxgt.''qwwkf g''go r m{o gpv'o c{''pqv'kpvgthgtg''y kij ''y gkt''cecf go ke''qt''erkpkecn'' tgur qpwkdkrkkgu0P q''ur gekcri'r tkxkrgi gu''ctg''i tcpvgf ''\q''uwwf gpwi'y j q''y qtm'qt''r ctvkekr cvg''kp'' cp{''qwwkf g''cevkxkkgu''qt''go r m{o gpv0}$ 

Cp{'lwwf gpv'ceegr wpi 'rc{o gpv'hqt'f wwlgu'curki pgf 'cu'rctv'qh'vj gkt'enlplecngzr gt lgpeg" y knidg'lo o gf kcygf 'f kno kurgf 'lt qo 'vj g't cf kcylqp'vj gt cr{'rt qi t co 0

## V0' VTCPURQTVCVKQP<

Gcej "tcf kcvkqp" vj gtcr { "uwwf gpv'ku'uqrgn( 't gur qpukdrg'hqt "vtcpur qt vcvkqp" vq"cpf 'htqo "vj g" wpkxgtukx{ "cpf "cp{ 'hcektkx{ "wugf 'hqt "enkplecn"gf wecvkqp0"Uwvf gpvu'y km'P QV" vtcpur qt v'r cvkgpvu" kp"vj gkt "qy p"cwqo qdkrgu0

## WO' FTWI ICNEOJ ON'WUCI G<

Vj g"rtqi tco "hwrrqtui'c"ftwi "cpf "cneqj qn/htgg"gpxktqpo gpv'kp"cm'cur gew0'Uwf gpvu'o c{"dg" yuvgf "hqt"tgcuqpcdrg"ecwug0'Kh'yj g"hwf gpv'kh'hwur gevgf "qh'kpvqzkecvkqp"y kyj "s wguvkqpcdrg"qt" kpcrrtqrtkcvg"dgj cxkqt."yj g"hwf gpv'y knitgs wktg"cp"ko o gf kcvg"cneqj qn'\*dtgcvj "qt"dnqqf+" cpf kqt"ftwi "vguv'cv'yj g"hwf gpvxu"gzr gpug0'Ko rckto gpv'o c{"ngcf" vq"fkno knucn'htqo "yj g" rtqi tco 0j wrudhrqnkekyu0 wngQgf whrqnke{ lftwi /cpf/cneqj qn'rqnkekyu1

#### EnliplechiGf wecklap 'Ugevlap

## ENIP KECN'GF WECVKQP "6"EQO RGVGP E[ "RTQI TCO

Vq"o ggv"gpvt{/ngxgn"tgs wktgo gpw"cu"c"tcf kcwlqp"y gtcr knv."{qw"o wnv"f go qpwtcvg"r tqhkekgpe{"d{" eqo r ngwlpi "c"enkplecn"eqo r gvgpe{"r tqi tco 0°C v"F wng"Wplxgtukv{."y ku"ku"c"34/o qpyj "r tqi tco " f gf kecvgf "vq"y g"Wplxgtukv{\u00e4\u

Cm'erlplecn'cuuki po gpwi'tgs wktg''r tqxkf kpi "cevkxkkgu''yi cv'ctg"gf wecvkqpcm( 'tgrcvgf "cpf 'xcrkf 0 POVG<'Kh''(qw''j cxg"cp{ "s wgwkqpu'tgi ctf kpi "yi g'xcrkf kx{ "qh''(qwt "erkplecn'cuuki po gpv\*u+."r rgcug"eqpvcev'' yi g'Rtqi tco "F ktgevqt"qt"c''r tqi tco "qhhkekcn'hqt"cuukuvcpeg0

Vj g'enkplecn'gzr gtkgpeg'ku'untwewtgf ''q'cmqy ''c'u{urgo cyke''crrtqcej .'tghrgevkpi ''y g''cuuguuo gpv'qh'y g'' chigevkxg.''eqi pkkxg.''cpf ''r u{ej qo qvqt'f qo ckpu.''cu''qwwkpgf 'kp''rgewtgu.''rcdqtcvqt{''f go qpuvtcydpu.'' cpf ''r tcevkewo .''kpvq''y g''r tcevkecn'cur gewu'qh'tcf kcykqp''qpeqnqi {0'Uwf gpvu''o wuv'f go qpuvtcyg'' eqo r gvgpe{''kp''ukz''\*8+''ctgcu0'Vj gug''ctgcu''ctg''i gpgtcn'r cykgpv'ectg.''uko wcykqp''r tqegf wtgu.''f quko gvt{.'' vtgcvo gpv'r tqegf wtgu.''f tqegf wtgu.''cpf ''tcf kcykqp''y gtcr {''ttgcvo gpv'r tqegf wtgu0' F gvckrgf ''f guetkrykqpu''ecp''dg''hqwpf 'j gtg<<u>i wru

Vj g'CTTV'tgs wktgu''eqo r gvgpeg''kp''ukz '\*8+'r cvkgpv'ectg''cevkxkkkgu. ''y tgg'\*5+'s wcrkv ''eqpvtqri'r tqegf wtgu. '' vtgcvo gpv'uko wrcvkqp''hqt''ugxgp'\*9+''cpcvqo ke''tgi kqpu. ''ukz '\*8+'f quko gvt { "gzr gtkgpegu. 'hcdtkecvkqp''qh'' hqwt '\*6+''vtgcvo gpv'f gxkegu. 'r ctvkekr cvkqp''kp''y tgg'\*5+'kphtgs wgpv'j ki j /tkum'r tqegf wtgu. ''cpf ''eqo r gvgpeg'' kp''gki j vggp'\*3: +''vtgcvo gpv'r tqegf wtgu0

Cnj qwi j "c"uwf gpv"o c {"uweeguuluun{" eqo r ngw eqo r gwpe {"wukpi ."eqpvkpwgf "r gthqto cpeg"qh"y cv" r tqegf wtg"o wuv"dg"f go qpuntcygf "cpf "cuuguugf "y tqwi j "qpi qkpi "eqo r gwpe { "vq"o ggv"y g"hkpcnlygto kpcn" eqo r gwpe { "tgs wtgo gpw0C"hwty gt"dtgcnf qy p"qh"tgs wtgf "cpf "eqpvkpwgf "eqo r gwpekgu"ku"r tqxkf gf " qp"r ci g"5: "qh"y ku"j cpf dqqn0Kic"uwf gpv"bcknu"vq"r gthqto "cv"cp { "ngxgn"qh"eqo r gwpe { ."vj g"uwf gpv" tgwtpu"vq"y g"rcdqtcvqt { "hqt"tgo gf kcn"kpuntwevkqp0Hqmqy kpi "y g"tgo gf kcn"kpuntwevkqp."y g"uwf gpv"y km" tgwtp"vq"y g"enkplecn"ctgc"qt"ukwg"y j gtg"y g"f ghkekppe { "y cu"pqvgf"cpf"r tcevkeg"y g"r tqegf wtg"wpvkn"y g" enkplecn"uvch"f gwgto kpgu"y g{ "ctg"tgcf { "vq"eqo r ngwg"eqo r gwpe { "yunkpi 0UWEEGUUHWN" EQO RNGVKPP'QHCNN'EQO RGVGPE [ 'VGUVU'NU'TGS WKTGF'HQT'I TCFWCVKQP0

Vj g'r tqi tco )u'hktuv'y ggmiy km'eqpukuv'qh'c'eqo r tgj gpukxg'tgxkgy "qh'vj g'uwwf gpv'j cpf dqqm0F wtkpi "
y ku'qtkgpvcvkqp'y ggm'uqo g'ikpgct'ceegngtcvqt'vko g'y km'dg'uej gf wrgf. "cmqy kpi 'uwwf gpwu'vq'f gxgmqr "c"
hggmlqt'vj g'j cpf 'r gpf cpv."o cej kpg'r ctco gygtu."cpf 'eqpvtqmu'vj tqwi j 'j cpf u/qp"gzr gtkgpeg'kp"c'uvtguu/
htgg"gpxktqpo gpv0Vj g'r tgegr vqt 'ecp"cmq'r tqxkf g'cp"qxgtxkgy "qh'vj g'vtgcvo gpv'eqpuqng"cpf "
eqo r gvgpe{ "gzr gevcvkqpu'dghqtg"enkple"tqvcvkqpu'dgi kp0O qtgqxgt."c"EVIUKO "y kj 'hko kgf "enkplecn'wug"
ku'cxckredng."cpf "vj g'uwxf gpvu'y km'tgegkxg'uko wrcvkqp'qtkgpvcvkqp0Vj g'F wng'Tcf kcvkqp'Qpeqmi { "

f gr ct vo gpv'cnıq'j qwugu'c'f gf kecvgf 'O T Kwpkx.'y j gt g'uwvf gpvu'ecp''qdugt x g'kwu'qr gtc $\sqrt{\ r}$  tqegf  $\sqrt{\ r}$  tgegkx $\sqrt{\ r}$  tgegkx $\sqrt{\ r}$  tgegkx $\sqrt{\ r}$  tgegkx $\sqrt{\ r}$ 

EnlplecniQdnki cvkqpuô Uvwf gpvu'y knihqnngy 'vj g'F wng'UQO 'eengpf ct'hqt'j qnkf c{u'y kej 'tiqo g'o qf khecvkqpu" y j kej 'y knidg'f knewugf 'f wt kpi 'vj g'hktuv'y ggnlqt kgpvcvkqp'tiguukqpu0

Vj g'Eqtg'Tcf ke vlap 'Opeqnqi {'Eqwt ugu'ctg'f guki pgf "\q"kpvtqf weg"\j g"uwf gpv\'q"\j g"dcuke"unkmi'cpf" gs wkr o gpv\'wugf "\q"\tgcv\rcv\gpvu'y kj "kqpk kpi "tcf ke vlap "hqt"xctkqwu"f kugcugu0Rctvkewet "go r j cuku"y kni'dg" r reegf "qp"f kugcugu"cpf "\tgcv\kpi wj g"o quv'eqo o qpn\{"gzr gtkgpegf "f kci pqugu"y kj "tcf ke vlap"\j gter \{0' Uwf gpvu"y kni'cnuq"dg"kpvtqf wegf "\q"cur gevu"qhir cvkgpv'ectg"kp"\j g"ercuntqqo "cpf "rcd0V\j g"dqf \{"o gej cpkeu" qhi'cuukuvlpi "r cvkgpvu"kp"cpf "qw'qhi'y j ggrej cktu. "qhhi'cpf "qp"uvtgwej gtu. "cpf "qpvq"\j g"ttgcvo gpv'eqwej "y kni'dg" f go qpuvtcvgf 0F wtkpi "eqwtugu. "tcf ke vlap"r tqvge vlap"tgs wkt go gpvu"y kni'dg"f kuewungf ."cpf "uwf gpvu"y kni'dep" cp"wpf gtuvcpf kpi "qh'\j gug"r tkpekr rgu"dghqtg"gpi ci kpi "kp"enkpkecnlpxqnxgo gpv'y kj "r cvkgpvu0F qug" ecrewcvkqpu"y kni'dg"f go qpvvtcvgf 0Kp"cf f kkqp"\q"f kf cevke"( "rcdqtcvqt \{"kpvvtwevlqp."\j g"uwf gpvu"y kni'qwt" yj g"tcf kcvkqp"qpeqnqi \{"f gr ctvo gpv'hqt"qtkgpvcvkqp"cpf "cp"qxgtxkgy "qh'\j g"hcektw\{0Chigt"\j kv"kpvtqf wevqt \{" r gtkqf ."\j g\{"y kni'dg"tgcf \{"hqt"kpkkcn'tqvcvkqpu"kp"cewcn'r cvkgpv'tcf kcvkqp"ctgcu"y kj kp"\j g"tcf kcvkqp" qpeqnqi \{"enkpke0\}

Y j gp"y gtcr {"uwf gpultgr qtvlqt"y g"htuvlenkple"tqvvlqp." \*\*EnhplecntGf wec vlap 'K"y gkt"gzr gtkgpeg"y km" r tho ctkn{"eqpukuv'qh"qdugtxcvlqp"hqt"y g"hgy "f c{u"qt"y ggmu"y g{"ctg"kp"y g"enkple0Qpeg"y g"uwf gpv"j cu" eqo r ngvgf "y g"gs wkr o gpv"o cpkr wrcvlqp"eqo r gvgpe{."y g{"o c{"dg"r gto kwgf "vq"cnki p"y g"vcdng"cpf "o cej kpg" r ctco gvgtu"wpf gt "f ktgev"uwr gtxkukqp0Vj g"uwf gpv"o c{"cnuq"cuukuv'y ky "r cvkgpv"tcpur qtv."r qukxlqpkpi " r cvkgpv"hqt"t gcvo gpv"wpf gt "y g"f ktgev"uwr gtxkukqp"qh"c"tgi knvgtgf "tcf kcvkqp"y gtcr kuv."cpf "r gthqto kpi " i gpgtcn"vcumu0Cu"y g"uwf gpv"eqpvkpwgu"q"gctp"kp"y g"enkplecn"ugwkpi ."y g"eqi pkkxg"cpf "r u{ej qo qvqt" cur gevu"qh"y g"uwf gpvxu"gf wecvkqp"uj qwf "gpcdng"cf xcpego gpv"q"r gthqto "dcuke"tgcvo gpv"r tqegf wtgu0Cv" y ku"uci g. "y g"uwf gpv"uj qwnf "f go qpuvtcvg"c"y qtqwi j "vgrkpi "qp"dcuke"r tqvqeqnu0

F włpi "EthplectIGf wecklap 'KK' 'y g''uwf gpv''uj qwf 'r tqi tguu''q' kpxqnxgo gpv'kp''enkplecti'qdlgekxgu''y cv'ctg'' uqo gy j cv'o qtg''eqo r ngz0V j g{ "ctg"gzr gevgf "vq'r gthqto "dcuke"r cvkgpv'ectg''r tqegf wtgu. "r ctvkekr cvg''kp'' uko wrcvkqpu. "tgeqi pk g''cpcvqo { ."eqpuvt wev'cpf "eqttgevn( "wkrk g''ko o qdkrk cvkqp"f gxkegu. "cpf "wug''tgevo gpv'' ceeguuqtkgu0Qpg"gs wkr o gpv'o cpkr wrcvkqp"eqo r gvgpe{ "vguv'ku''tgs wktgf "cpf "o c{ "kpenwf g''c'o cej kpg'y cto / wr "r tqegf wtg."r tqxkf gf "y g''r tgegr vqt''ci tggu''y cv'y g''uwf gpv'ku''tgcf { "hqt''ko'Cu''y ky "enkplecti'gf wecvkqp''K'' y g''uwf gpv'ku''kp''y g''enkplecti'ugwkpi "y tgg''vko gu''c'y ggm\*46''j qwtu+0Rtqi tguukxgn( ."y g{ "y kn'idgeqo g''o qtg'' cevkxg''kp''cuuguukpi "r cvkgpvu. "kpvgi tcvkpi "y gqt { "y ky "r tcevkecn''gzr gtkgpeg''kp''ctgcu''uwej "cu''gs wkr o gpv'' r cvkgpv'r qukkkqpkpi ."cpf 'vgej pks wg0

F wtkpi "Entplee nGf wee vtap 'K' y g'uwf gpv'o wuv'f go qpuvte yeqo r gygpe { "kp"c"o kpko wo "qhi'y tgg'\*5+"deuke" vtgevo gpv'ygej pks wgu "cpf "w q"\*4+"r cykgpv'eetg"ceykxkkgu="Entplee nGf wee vtap 'KK'tgs wktgu"deuke "vtgevo gpv' vgej pks wgu "r cykgpv'eetg"ceykxkkgu "uko wreykqpu "vtgevo gpv'f gxkeg "liedtkeevkqp" deuke "f qug"eenewreykqp. "cpf" eqpykpwgf "eqo r gygpekgu0Hqt"c "hwnieqo r gygpe { "uej gf wrg."ugg'r ci g'5: 0

Kp" Ent lec n'Gf wec stap 'KKK' ligy gt "f kf ceske "encuugu" cmy "c"j ki j gt "eqpegpytcskqp" qh"ent lec nigzr gt kgpeg0'V j g" uwf gpui'y km'dg"cv'y g"ent lec nice knk/ "hqt "hqwt "f c { u. "vqvcnkpi "54" j qwtu0'C v'y ku'r qkpv. "y g"uwf gpui'uj qwrf " gzr cpf "y gkt "r tceskeg "vq "kpenwf g"o qtg" eqo r ngz "tcf kcskqp" y gtcr { "r tqegf wtgu'cpf "uko wrcskqpu0'

## ErlplecriVlo g'Qdrli cvlqpu<

 Hcm
 : "j qwtu'z"5"\*O Y H+"?46"
 46"j qwtu'z"¢36"y ggmu"? "558"\qvcn'j qwtu

 Ur tkpi <" : "j qwtu'z"5"\*O Y H+"?46"</td>
 46"j qwtu'z"¢36"y ggmu"? "558"\qvcn'j qwtu

 Uwo o gt<". "j qwtu'z"6"\*O/VT+"? "54"</td>
 54"j qwtu'z"635"y ggmu"? "638"\qvcn'j qwtu

¢32: : "vqvcn"j qwtu"kp"enkpke

Pqvg, "Uc{"cevkxg"f wtkpi "fqy pvko g."uqo g"qr vkqpu<

æÈ Rtcevkeg"o cej kpg"eqpvtqni"cpf "eqpuqrgu"vq"dgeqo g"o qtg"hco krkct0

à E Gpi ci g'y ky "c''y gter kuv'd { "cumhpi "s wguvkqpu't gnevgf "vq'tef kevkqp" y gter { 0

& Cum'vq'qdugtxg'cpqyi gt'o cej kpg0

Chigt "eqo r ngulpi "iy g"tgs wltgf "eqo r gugpelgu. "HlipcniVgto kpcni'eqo r gugpe { "uguvu" y kmi'dg"eqpf weugf." kpenwf kpi "hqwt "utgcvo gpvu"cpf "vy q"uko wnculqpu0Eqo r ngulqp"r tgr ctgu" y g"uwuf gpv"tcf kculqp" y gtcr kuv" y kj "c" uqnlf "cecf go ke "cpf "enliplecnihqwpf culqp." cpf "y g{ "ctg" y gm/gs wlr r gf "vq"dg"cp"ogpvt {/ngxgn'tcf kculqp" y gtcr kuv0o

Cv'y g''dgi kppkpi ''qh'igcej ''eqwtug''qt''ugo guvgt. ''gcej ''uwwf gpv'ku'i kxgp''c''eqwtug''u{ mcdkw0'Vj g''u{ mcdk'eqpukuv'' qh'eqwtug''qt ''erkpkecn'qdlgevkxgu. ''y tkwgp''cuuki po gpvu. ''cpf ''eqo r gvgpe{ ''tgs wktgo gpvu''hqt ''y cv'ugo guvgt0'Vj g'' r wtr qug''ku'vq''cuukuv. 'tgo kpf. ''cpf ''f go qpuvtcvg''vq''uwwf gpvu''y g''lo r qtvcpeg''qh'hco krketk kpi ''y go ugnxgu'y ky '' gcej ''erkpkecn'ctgc)u''gs wkr o gpv''cpf ''ecug''v{ r gu. ''cpf ''kf gpvkh{ ''y g''ur gekhe''tgs wktgo gpvu''hqt''y g''r ctvkewret'' erkpkecn'eqwtug0

Vj g'eqo r gvgpe { "cpf "enlplecnir gthqto cpeg"gxcnvcvlqp"hqto u'vguv'chhgevlxg. "eqi plakxg. "cpf " r u{ej qo qvqt 'unkmu0[ qw'y kni'dg'kpvtqf wegf 'vq'y ku'hqto cv'f wtkpi "encuutqqo "ngewtgu0'Uwf gpvu'y kni' tgegkxg"enlplecnigxcnvcvlqpu'qhi'yi gkt "qxgtcmir gthqto cpeg"f wtkpi "gcej "tqvcvlqp. "cv'yi g'o kf r qkpv."cpf "cv' yi g'eqpenvulqp0'J qy gxgt. "uwf gpvu'y kni'o ggv'y kji "enlplecniuvchhlr tgegr vqt "\*u+"y ggmn{ "vq'tgxkgy " r gthqto cpeg"cpf "tgegkxg"i wtf cpeg"hqt "eqpvlpvcnilo r tqxgo gpv0'Vj gug'y ggmn{ "uvcwu'tgr qtvu'ecp"dg" f qewo gpvgf "kp"VTCLGEU U0

Vj g'eqo r gvgpe { 'r tqi tco 'hqmqy u'hkxg'uvgr u'qh'r tqi tguulqp<

- 30' Ngewit g'cpf 'F lif cevle 'Vgwlpi < Encurt qqo 'lpunt wevlqp'lu'r t qxlif gf 'vq'r t gr ct g'tiwif gpwi'lqt" enlplecn'gf wecvlqp0Cp"gzco lpcvlqp"qh"y g"eqxgtgf "o cvgtlcnllqmqy u"y ku'lpunt wevlqp0
- 40' Ncdqtcvqt{<Hcewn{"y kmif go qpuvtcvg"r qukskqpkpi "cpf "qyj gt"cur gevu"qhi'enkpkecnitcf kcvkqp" qpeqnqi {"kp"yj g"vtgcvo gpvlEV/Uko "ncdu"cpf "enkpke"hcekrkskgu"cu"uej gf wrkpi "r gto ksu0
- 50' Ret where valap < Uwf gp u'y kn'y qt n'wpf gt 'y g'f kt gev'uwr gt x kulap qh'e 'tgi kungt gf 'tcf kerlap 'y gt cr kun'e v'CNN 'y gu0'F kt gev'uwr gt x kulap 'ku'hwn ( 'f ghlogf 'qp '' r ci g'5; ''qh'y ku'j cpf daqm'e pf 'kpennf gf 'kp'y g'i muuct ( ''qh'guugp ken'y gt o u0
- 60' EnplecdEgo rgvgpe{ 'Gxcnvcvlqpu
  - "'' **Kpkskcnieqo rgvgpe{'vgum≮Gzrncpcvkqpu'qhieqo rgvgpelgu'ctg'rtqxlfgf'**qp" uwdugs wgpv'rci gu0

Dghqtg'i tcf wcvlqp."uwf gpvu'y km'eqo r gvgpe{"\guvu."kpenvf kpi '8" vgto kpcn'eqo r gvgpekgu<6'\tgcvo gpv'eqo r gvgpekgu'cpf "4'uko wcvkqp" eqo r gvgpekgu0

"'' Eqpvlpwgf 'eqo r gwgpe{ 'vguwk

Vj g"uwf gpv'y km'eqo r ngvg"ukz "eqpvkpwgf "eqo r gvgpe{ "vguvu"cu"tgs wktgf "dghqtg" i tcf wcvkqp0

"'' HipcniVgto kpcnleqo rgvgpe{'\tgum<

Vj g'uwf gpv'o wuv'r gthqto "ukz 'hkpcrl\*vgto kpcn+"eqo r gvgpe{ '\guvu0Gcej 'uwf gpv'y km'r gthqto 'hqwt'' vtgcvo gpv'r tqegf wtgu'cpf 'vy q'uko wrcvkqpu0Vj g'erkplecn'uwr gtxkuqt. "erkplecn'eqqtf kpcvqt."qt'r tqi tco

f ktgevqt "y km'ugrgev" y gugOV j g"hqwt "vtgcvo gpvu" y km'dg" ugrgevgf "htqo "vj g" vtgcvo gpv" ecvgi qt { ."vj j krg" y g" w q"uko wrcvkqpu" y km'dg" htqo "vj g"uko wrcvkqp" ecvgi qt { 0"Vq" vtwn("f go qpuvtcvg" r tqhkekgpe { ."vj g" vtgcvo gpvu" ("uko wrcvkqpu" ctg" r gthqto gf "kp" f khigtgpv" ctgcu0

Vj g''vtgcvo gpv'ecvgi qtkgu'kpenwf g<

" dtckp"j gcf "( 'pgem'" ej guv'dtgcuv'" cdf qo gp"r grxku"

" ungrgven grgevtqp'hkgrf u

Vjg'uko wrcwkqp''ecvgiqtkgu''kpenwfg<'

 Æltckp
 j gcf "( "pgem

 " ej guv
 dtgcuv

 " cdf qo gp
 r grĸku

" umgngven

<u>POVG</u>Cniego rgvgpe{ 'tguwi'b rgvgpe{ 'tguwi'b ww'dg'ego rgvgpe{ 'tguwi'b ww'dg'ego rgvgpe{ 'tguwi'b c{ 'dg'rgt hqt o gf 0Hlpcniego rgvgpe{ 'tguwi'<u>O C[ 'POV'</u>dg'illo wwygf 0

#### I GP GTCN'RCVKGP V'ECTG

- "" Uwf gpvu'y knif go qpuvtcvg'eqo r gvgpeg'kp''ukz '\*8+i'r cvkgpv'ectg''cevkxkklgu0
- "' Xkcrl'Uki pu/'hqwt''ctgcu'\*dmqf''r tguuwtg.''r wnug.''tgur ktevkqp.''yo r gtewtg+
- "" Revlepv'\tcpulgtu/"Wulpi "r tqr gt '\gej pls wgu
- "" Rtqr gt "wug"qh'r cwlgpv"o gf kecn'gs wkr o gpv" g0 0"Q4 cf o kpkurtcwlqp+
- "" Uwf gpw'y km'r gthqto "eqo r gygpe { "ygwkpi "kp"gcej "qh'y g"cdqxg"ecygi qtkgu0
- "" Ego r gygpe { 'hyto u'ctg'kp''VTCLGEU U)

Vj g'tgo ckpf gt "qhi'yi g''i gpgtcni'r cvkgpv'ectg"eqo r gvgpe{ "tgs wktgo gpwi'y kmidg"eqxgtgf "f kf cevkecm[ "cpf " r tcevkegf "kp 'yi g'Rcvkgpv'Ectg"cpf "kpvgtcevkqp"eqwtug0'Uwf gpwi'ecp 'vcng''yi gug"eqo r gvgpe{ "vguwi'f wtkpi " yi g''r tqi tco "cv'yi g'f guki pcvgf "enkpkecnictgcu"qt "ukvgu0'Eqo r gvgpe{ "hqto u'hqt''yi gug"ctgcu'ctg''nqecvgf "kp" VTCIGEU[ U0

, 'POVG<Rtqi tco 'hcewm{ 'y kmir tqxkf g'tgo gf kcnicuukuvcpeg'khi'uwxf gpvu'ecppqv'qdvckp'r cuukpi 'i tcf gu'' f wtkpi 'enkplecn'gf wecwkqp0Cmikpuvtwevqtu'y kmij cxg'r quvgf 'qhhkeg'j qwtu.'uqo g'o c{ 'dg'xkt wcn0Hcknwtg'' vq'eqo r ngvg''y g'tgs wktgf 'eqo r gygpe{ "gxcnwcwkqpu'hqt'cp{ 'ugo guvgt'o c{ 'tguww'kp'cp'kpeqo r ngvg''i tcf g0' Hcknwtg''y eqo r ngvg''y g'tgs wktgf 'eqo r gygpe{ ''yguwkpi 'd{ 'vy g'dgi kppkpi 'qh'y g'pgzv'ugo guvgt'ku'i tqwpf u'' kqt'f kuo kuucn0

Ko"eqplwpevlqp"y ky "y g"enlpkecn" tgegr vqtu. "r tqi tco "f ktgevqt."cpf "enlpkecn"eqqtf kpcvqt."y g"f ckn{ "enlpkecn" gf wecvlqp"gzr gtkgpegu"ctg"r ncppgf "dcugf "qp"y g"uwf gpv\u"cdkkkgu0Uwf gpvu"y knidg"uej gf wrgf "hqt"enlpkecn" gzr gtkgpeg"cu"f guetklgf "kp"y g"j cpf dqqm"\f r kecm{ "y tgg"\q"iqwt"f c{u"r gt"y ggm"gcej "ugo guvgt0Vj g"enlpkecn" eqqtf kpcvqt. "enlpkecn"uwr gtxkuqtu. "r tqi tco "f ktgevqt. "cpf kqt"uvchi"tcf kcvlqp"y gtcr kuvu'uwr gtxkug"uwf gpvu" f ckn{0Vj gug"kpf kxkf wcnı"eqmcdqtcvg"kp"y g"enlpkecn"gf wecvlqp"qh"y g"uvwf gpvxu"tckpkpi 0Vj g"tcvlq"qh"y g" enlpkecn"uwr gtxkuqt"\q"uvwf gpvu"y kni'pgxgt"gzeggf "3<0Vj g"tcvlq"qh"tgi kuvgtgf "uvchh "kpenwf kpi "tcf kcvlqp" y gtcr kuvu. "\q"uwf gpvu"dghqtg"cej kgxkpi "eqo r gygpe{"y kni'cnq"dg"3<0

Cu'uej gf wrkpi "cmqy u. 'mcdqtcvqt { 'uguukqpu'ctg' kpeqtr qtcvgf 'kpvq' vj g' kqmqy kpi "eqwtugu < Erkpkecn' Tcf kcvkqp' Qpeqnqi { .''Rcvkgpv' Ectg. "Uko wrcvkqp" cpf "Vtgcvo gpv' Vgej pks wgu. "cp { 'S wcrkv{ 'Eqpvtqn' }

uwdlgevu. "cpf 'Tcf kcvkqp'Rj {ukeu0Ncdu'f gxgrqr "cpf '\guv\'y g'\unkruı'uwxf gpvu'hgctp'kp''encuu'd { ''cmqy kpi '' y go '\q'r tcevkeg'kp''c'j cpf u\qp'\ugvkpi 0

Rtqi tguu'kı'gxcnwcyf 'kp'o cp{ 'y c{u0Qdlgevkxg''gxcnwcylqp'hqto u'y kni'dg'wugf "gcej 'ugo guyt''q''gpuwtg'' uwf gpwi'ngctp''r tqi tguukxgn{0Vj gug''gxcnwcylqpu''o gcuwtg''unkmi'cpf 'eqo r gygpe{0Vj g''eqo r gygpe{" gxcnwcylqpu''tghrgev'y g''gzceylpi 'uvcpf ctf u'tgs wktgf ''qh'tcf kcylqp''y gtcr knw0Qdlgevkxg''tcy gt''y cp'' uwdlgevkxg''enlpkecni'r tqi tguu''ecp''dg''ceeqo r nkuj gf 'wulpi ''y gug''qqnn0Gcej 'uwf gpv'r gthqto u''y ku''cv'c'' f khigtgpv'r ceg0Vj g''uwf gpv'o wuv'ueqtg''; 2' ''qt''j ki j gt''q''cej kgxg''c''ucykulicevqt{'I tcf g0} F wklpi ''y g''O kf '\*¢: 'y'''cpf 'Hkpcn'\*¢38'y'''y ggmu\*\*lQ0''gxgt{'': ''y ggmu+"enlpkecni'r tgegr vqtu'y kni'eqo r ngyg'' r gthqto cpeg''gxcnwcykqpu''q''tceni'uwf gpv'r tqi tguu'kp''Vtclgeu{u0J qy gxgt.''c'y ggmn{'uwcwu''tgr qtv'' eqpligtgpeg''y kni'dg''gpeqwtci gf 'hqt''y g''uwf gpv'cpf ''r tgegr vqtu0Kp''cf f kklqp.''eqphgtgpegu''ctg''j gnf ''q'' tgxkgy ''y g''uwf gpvu)'o kf/vgto u'cpf ''cv'y g''gpf ''qh''gcej ''ugo guygt''vq''f kuewuu''r tqi tguu''cpf ''i kxg''j qpguv'' hggf dcem'wulpi ''y gkt''gxcnwcykqpu''cpf ''eqo r gygpekgu0

Cv'y g"gpf "qh"gcej "enkplecn'tqvcvlqp."uwf gpuu'o wuv'eqo r ngvg"cp"gxcnwcvlqp"qh"y cv'enkplecn'ctgc lukvg"cpf "r tgegr vqtu0Eqpuvt wevkxg"etkkekuo "ku'y gneqo g0"Vj gug"gxcnwcvlqpu"o c{"dg"cpqp{o qwu0"Vj g"tcf kcvlqp" y gtcr {"hcewn{"y kn"tgxkgy "cpf "f kuewuu"y g"r qukvkxg"cpf "pgi cvkxg"eqo o gpvu"cu"kpf kecvgf 0"D{" r tqxkf kpi "hggf dcem"uwf gpvu"j gm "gpuvtg"y g"uweeguu"qh"y ku"r tqi tco 0

## Tgeqtf lpi '{ qwt 'eqo r gwgpe{ 'cpf 'gxcnwcylqpu0

Vj g"eqo r gygpe{"thuvku"nqecygf "kp" y g"uwf gpyu"VTCLGEU U'r rcyhqto 0\*Vj g"VTCLGEU U'r rcyhqto " y kni'dg"eqxgtgf "cu"c"ugr ctcyg"kp/ugtxkeg"dghqtg"enkplecmi'dgi kp+"Vj ku"grgevtqpke"u{uyo "y kni'eqpyckp" { qwt "eqo r gygpe{"yguv'hqto u"cpf "uychhi'gxcnwcylqpu"hqt" y g"enkplecniugwkpi u0Vj g"hqto u"ctg"wugf "yq" f qewo gpy'enkplecni'gzr gtkgpeg0'kpenwf gf "ctg"xqnwpyct{"f ckn("nqi "uj ggyu."c"eqo r gygpe{"tgeqtf "uj ggy." cpf "ycm("uj ggyu."q"vtcemi'ytgcvo gpyu"( "uko wrcylqp"r tqegf wtgu0'Vj g"VTCLGEU U'nqi dqqmi'cnq" eqpukuvu'qhi'c'hqto "hqt"uwwf gpyu"yq"tgeqtf "y gkt"uweeguu"kp"eqo r gygpe{"ygukpi 0'Vj ku'hqto "y kmi' gm" uwwf gpyu"ytcemi'y gkt "eqo r gygpe{"cpf "r ceg"y go ugrxgu"cu"y g"ugo guygt"r tqi tguugu0'Vj ku'r rcyhqto "y kmi' cnq"dg"wugf "yq"õenqemikp"cpf "qwo"cv"{qwt"enkplecnimqevkqp0

## EQORGVGPE[ 'I WAFGNAPGU

- 30' Uwaf gpwu''o c{ ''pqv'r gthqto ''eqo r gvgpe{ ''vgwkpi ''wpvkn'iy g{ ''j cxg''qdugtxgf ''vj g''vtgcvo gpv''qt'' uko wncvkqp''r tqegf wtg''kp''y g''enkpkecn'ugvkpi 0
- 40' Uwf gpvu)'eqo r gvgpe { ''vgukpi 'ku'cv'vj g'f kuetgvkqp"qh''vj gkt ''r tgegr vqt0F kuewukqpu''dgwy ggp''vj g'' uwf gpv''cpf ''r tgegr vqt''o c { ''kpf kecvg''vj cv''vj g''uwf gpv''ku''tgcf { ''qt''pggf u''o qtg''r tcevkeg0
- 50' Wpf gt "f ktgev'qdugtxcvkqp." y g"tgi knygtgf "tcf kcvkqp" y gtcr knv'qdugtxgu" y g"tnwf gpvsu" r gthqto cpeg0F wtkpi "eqo r gvgpe { "'ygurkpi ." y g'tcf kcvkqp" y gtcr knv'y km'etksk wg"cpf "cr r tqxg" y g" r qukkqpkpi ."cm'o cej kpg"ugvkpi u. "uqwteg/ q/ko ci g"f knvcpeg" "UkF +"cpf" y g"wug"qh'cr r tqr tkcvg" vtgcvo gpv'f gxkegu0C v'y g'vtgcvo gpv'eqpuqng. "y g'uvwf gpv'y km'ugv'cm'o cej kpg'r ctco gvgtu0V y g" y gtcr knv'y km'xgtkh{ "cm'r ctco gvgtu"cpf "cmqy "y g"vtgcvo gpv'q"dg"f grkxgtgf 0V y ku'r tqeguu"y km' dg'tgr gcvgf "hqt"gcej "hkgrf" wpvkn'y g"vtgcvo gpv'ku"eqo r ngvgf 0V y ku'kpenwf gu"cm'pggf gf "qt" r tguetkldgf "lo ci kpi 0Chvgt"tgo qxkpi "y g"r cvkgpv'htqo "y g"vtgcvo gpv'tqqo ."y g"y gtcr knv'ecp" eqo r ngvg" y g'tgs wttgf "hqto u'wukpi "y g"grgevtqpke"VT CLGEU U'u{ uvgo 0
- 60' C'uwf gpv'o c{'uko wrcvg'c'eqo r gvgpe{'vguv'kp'ceeqtf cpeg'y ky 'vj g'öUko wrcvkqp'Rqrle{0} 70' Ki'yj g'uwf gpv'f qgu'pqv'cej kgxg'c'o kpko wo 'i tcf g'qhi'; 2' .''yj g{'y kriitgwtp''vq''y g'rcdqtcvqt{'hqt'' tgo gf kcnikputwevkqp''cpf 'tgxkgy 'vj g'r tqegf wtg'kp''yj g'vgzvdqqn0'Vj g'uwf gpv'y km'yj gp'dg''

- tgcuuki pgf "\q"\yi g"cr r tqr tkc\yg"enkplecn'ctgc"qt "uk\yg"hqt "cf f kklqpcn'r tce $\$  \keg'\wpf gt "f ktge $\$  \text{uwr} gtxkukqp0
- 80' Rtqi tco "qhhkeknu"o wuv'dg"pqvkhkgf "qh'cp{'hckngf "eqo r gvgpe{"vq"cttcpi g"tgo gf kcn'kpuvtwevkqp0' Vj ku"pqvkhkecvkqp"o c{"eqo g"htqo "vj g"uvwf gpv'cpf lqt"vj g"tgi kuvgtgf "tcf kcvkqp"vj gtcr kuv'kpxqnxgf "kp"vj g"hckngf "eqo r gvgpe{"vguv."qt"dg"uvvdo kvgf "vq"VTCLGEU[ U0
- 90' Vj g'eqo r gygpe { "yguv'y km'cuuguu"r tqhkekgpe { "kp"y g'hqmqy kpi "ctgcu<"r cykgpv'ectg. "tqqo. "cpf" gs wkr o gpv'r tgr ctcykqp. "kf gpykhkecykqp"qh'iyj g'r cykgpv'\*kpenwf kpi "r tqegf wtg. "r cyj qmi { ."cpf" r cykgpv'j kuvqt { + "gs wkr o gpv'qr gtcykqp."r qukkkqpkpi "cpf "ko o qdkrk| cykqp."eqttgev'wuci g''qh'i ytgcvo gpv'ceeguuqtkgu. "cpf "tgxkgy "cpf" cf lwuvo gpv'qh'ir qukkkqpkpi "cu'kpf kecygf" d{ "vj g'FTTO"
- : 0' Vj g'eqo r gvgpe { 'o wuv'dg'nqi i gf 'kp''y g''VTCLGEU U'u { uvgo 0'Rtqi tco ''qhhkekcnu'uj qwrf ''dg'' cdrg''vq''ceeguu''y g''t gcvo gpv'ej ctv'\*cpf ''r qtvcn'ho ci kpi 'khi'cr r nkecdrg+''vq''xgtkhi{ ''y g''eqo r gvgpe { '' vguvkpi 0
- ; 0' Rcvlgpv'lphqto cvlqp"tgs wltgf "vq"tgvtlgxg"vj g"tcf lcvlqp"vj gtcr { "ej ctv'o wuv'dg"tgvclpgf "vq" licelrlscvg"ej ctv'tgxlgy "d{ 'licewn{ "cv'c"ncvgt"f cvg'liqt"xgtlrllecvlqp0
- 320' Tcf kckqp"yi gtcr {'ku'c'eqo r gygpe{/dcugf "gf weckqpcnir tqi tco 0'Uwf gpvtcf kckqp"yi gtcr kmu" o wuv'f go qpuntcyg'eqo r gygpeg'kp'ukz 'ecygi qtkgu<i gpgtcnir ckgpv'ectg. 'uko wuckqp'r tqegf wtgu." f quko gvt { ."tgcvo gpv'ceeguuqt { "f gxkegu."cpf 'tcf kckqp"vtgcvo gpv'r tqegf wtgu0Cf f kkqpcm{ ." uwf gpvu'o wuv'cevkxgn{ 'r ctvkekr cyg'kp'yi tgg"5+"j ki j /tkum'nqy /qeewttgpeg'r tqegf wtgu0

## EQO RGVGPE[ 'GZCO IP CVIQPU'CUTGS WITGF'D[ 'UGO GUVGT

#### Hem'6'ENRP KECN'GF'K

Tgs wktgo gpv'8"vqvcnieqo r gvgpe{ "vguvu 5"dcuke"vtgcvo gpv'vgej pks wgu 4"r cvkgpv'ectg"cevkxkvkgu 3"gs wkr o gpv'o cpkr wrcvkqp"eqo r gvgpe{

#### Urtkoi 'ó'ENKP KECN'GF 'KK

Tgs wktgo gpv-" 36"\qvcn'eqo r gvgpe { "\guvu 8"dcuke"\tgcvo gpv'\gej pks wgu 4"r cvkgpv'ectg"cevkxkvkgu 4"\tgcvo gpv'uko wrcvkqp"r tqegf wtgu 3"\tgcvo gpv'f gxkeg'ficdtkecvkqp 8"Dcuke"f qug"ecrewrcvkqpu"\gamma knidg"eqo rngvgf f wtkpi "Vtgcvo gpv/Rrcppkpi "Eqwtug+3" S C"Y cto /Wr "eqo r gvgpe { 4" eqpvkpvvgf "eqo r gvgpe { "\guv

#### Uwo o gt''ó''ENKP KECN''GF''KKK

Tgs wkt go gpv: 36"vqvcnieqo r gvgpe{"vguvu
7"tcf kcvkqp"vtgcvo gpvu
4"vtgcvo gpv'uko wrcvkqp"r tqegf wtgu
4"vtgcvo gpv'f gxkeg"licdtkecvkqpu
3" S C"Y cto /Wr "eqo r gvgpe{
6" eqpvkpvgf"eqo r gvgpe{"vguvu

## HopcniVgto localego r gvgpe{ 'vgumk'

 $\label{thm:converse} \begin{tabular}{ll} Hqt'Enkplecn'GF''KK''y g''uwf gpv''O WUV''RCUU''y g''ukz'''8+"tgs wktgf''hlpcnlvgto kpcnleqo r gvgpe { ''vguvuO'Gcej ''uwf gpv'y km'r gthqto ''hqwt'' vtgcvo gpv'r tqegf wtgu'cpf ''vy q''uko wrcvkqpuO'Vj g''enkplecn'uwr gtxkuqt. ''enkplecn'eqqtf kpcvqt. ''qt''r tqi tco ''f ktgevqt''y km'ugngev'y gugO'Vj g''hqwt''vtgcvo gpvu'y km'dg''ugngevgf''htqo ''y g''vtgcvo gpvu'ecvgi qt { .''y j krg''y g'' v q''uko wrcvkqpu'y km'dg''htqo ''y g''uko wrcvkqp''ecvgi qt { 0'Vj g''vtgcvo gpvu''cpf''uko wrcvkqpu''ctg''r gthqto gf'' kp''f khtigtgpv'ctgcu''vq''f go qpuvtcvg''r tqhlekgpe { 0} \end{tabular}$ 

# FKTGEV'UWRGTXKUKQP/Rtgegr vqtu

Cnit cf kc vlap 'dpeqmi { 'r t qegf wt gu'y knilig'r gt hqt o gf 'wpf gt 'vj g'f kt gev'iwr gt xkulap 'dpi'c" t gi kungt gf 't cf kc vlap 'vj gt cr kun'o wun'dg 'r j { ukecm{ 'r t gugp v'hqt 'gcej '' y gt cr gwwle 'r t qegf wt g'cpf ''ej gem'gcej 'r ct co gygt ''dghqt g''dgco ''ce vlxc vlap 0'Vj ku''uwr gt xkulap 'ku't gs wkt gf '' hqt 'cnit cf kc vlap 'dpeqmi { 'r t qegf wt gu0}

Vj g'hqmy kpi 'r ctco gygtu'eqpurkwyg'f ktgev'uwr gtxkukqp<

Vj g'tgi kuvgtgf 'tcf kcvkqp''vj gtcr kuv'uj cm<

- Tgxlgy ''y g'r cylgpydu'ytgcvo gpv'ej ctv'yq'f gygto lpg'lkh'y g'uwf gpv'j cu'y g'f kf ceyle'dcem tqwpf '' yq'r gthqto ''y g'r tqegf wtg0
- "' Gxcnvcvg''y g'r cvkgpvøu''eqpf kvkqp''y ky ''y g''uvwf gpvøu''mpqy ngf i g''( ''cdkrkvkgu0
- Dg'rj {ukecm{ "rtgugpv'f wtkpi "yj g'\tgcvo gpv'qt''uko wrcvkqp0
- Tgxkgy "y g'ttgcvo gpv'ugv'wr "cpf "o cej kpg'r ctco gygtu'dghqtg"gpgti k kpi "y g'ttgcvo gpv'wpk0"
- "" Qhigt "c "eqpuvt we kx g "et kıks wg "qh" yi g "uwwf gp vxu "yeej pls wg "cpf "r c \kgp v kp vgt ce \kqp u0

## <u>UKO WNCVGF 'EQO RGVGPE[ 'RQNKE[ <</u>

C"uwf gpv'o c { "uko wrwg"c"o czko wo "qh'vj tgg"eqo r gvgpe { "vguvu."cu"qwwlqpg" lqp"j g'CTTV'i wlf grlpgu0'Vj ku" eqo r gvgpe { "lij qwf" 'dg"tgr reegf 'y kij "cp"cewcn'eqo r gvgpe { "lh'icpf 'y j gp"qpg"dgeqo gu"cxckredrg0'Ki'c" uko wrwgf "eqo r gvgpe { "ku'tgr reegf 'y kij "cp"cewcn'vtgcvo gpv'qt"uko wrwlqp."cpqij gt"vtgcvo gpv'qt"uko wrwlqp."cpqij gt"vtgcvo gpv'qt"uko wrwlqp" o c { "dg"uko wrwgf 0" qw'o c { "uko wrwg" j tgg"eqo r gvgpe { "vguvu"cv'vj g"gpf "qh" { qwt"erkplecn'gf wecvlqp" vj gy" vj g"tgs wltgo gpvu"qh'vj g"eqo r gvgpe { /dcugf 'r tqi tco 0'Hkpcn'\*vgto kpcn+"eqo r gvgpe { "vguvu"OC["PQV"dg" uko wrwgf 0" qy gxgt."cv'vj g'O ckp"eco r wuTcf kcwlqp"Qpeqrqi { "F gr ctvo gpv."vj gtg"uj qwf "dg"o kpko cn' vtgcvo gpvu'vj cv'y kni'pqv'dg"cxckredrg'hqt"uwf gpvu"vq"eqo r gvgp'y gkt"pggf gf "eqo r gvgpekgu0

## Rt gegf wt g'hat 'c'tho wac vgf 'gzco koc vkap <

- " Qdvckp"c"pqvg"htqo "vj g"enkplecnir tgegr vqt"uvcvkpi "vj cv'vj g"vtgcvo gpv'y cu'vvpcxckrcdrg"f wtkpi "tqvcvkqp"qt"ugo guvgt0
- Vj g'uwf gpv'tgcuu'c'o qf gn'qt'r j cpvqo ."pqv'c'r cvkgpv0'Kp''y g''gxgpv'qh''c''uko wrcvgf ''ttgcvo gpv'' eqo r gvgpe{."'y g''ttgcvo gpv'o cej kpg'y km'pqv'dg''gpgti k| gf 0

## I TCFIPI 'RONIE | <

"" C'o kpko wo "i tcf g'qh"; 2' "ku'tgs wktgf "vq'r cuu'cm'eqo r gvgpe{ "vguvu'r gthqto gf "kp"y g" mcdqtcvqt{."enkpkecn'ugwkpi."qt"uko wrcvgf 0'Kh'uwf gpvu'hckn"yi g{ "o wuv'eqpvcev'yi g'r tqi tco "f ktgevqt"cpf "yi g'enkpkecn'r tgegr vqt0'C 'hckrgf "eqo r gvgpe{ 'hqto "ku'uwdo kwgf "xkc"Vtclgeu{u0'Vj g" uvwf gpv'y km'uko wrcvg"yi g'hckrgf "eqo r gvgpe{ "y kyi "yi g'enkpkecn'r tgegr vqt"qt "yi g'tcf kcvkqp" yi gtcr { "uvchh0'Vj g"uwf gpv'y km'tgvguv'kp"yi g"enkpke"cv'yi g"eqpxgpkgpeg"qh'vi g"enkpkecn'r tgegr vqt0' Vj g'tgvguv'ueqtg'y kmbqvg'dg"eqo r wgf "kpvq"yi g"eqwtug'i tcf g0

"" Uwf gpw'o c{"qpn("tgwng"c"rtqegf wtg"y keg0<u>HCKNWTG</u>"VQ"UWEEGGF "<u>CHVGT"VJ G</u>" <u>UGEQPF 'TGVGUV'O C[</u> 'TGUWNV"R 'F KUO KUUCN"HTQO "VJ GTCF KCVKQP "VJ GTCR[ "
RTQI TCO 0'Cnihwf gpw'o ww'r gt hyto 'tj g't gs wlt gf 'bwo dgt 'thleqpvlpwgf 'eqo r gygpelgu0

#### NCDOTCVOT[ 'RONKE KGU'TWNGU'CPF'I WKF GNKP GU

Tcf kckqp"ecp"dg"dqvj "dgpghlekcn"cpf "j cto hwr0"Vj gtghqtg."kv"ku"pgeguuct { "vq"guvcdrkuj "r qrkekgu. "twrgu. "cpf " i wkf grkpgu"hqt "vj g"F WMG"WP KXGT UKV[ "gpgti k| gf "ŏrcdqtcvqt { "ctgcuö' \q"gpuwtg"\yj cv'uwf gpvu. "hcewn\{."cpf " kppqegpv'd { uvcpf gtu"ctg"pqv"gzr qugf "\q"tcf kckqp0F wng"Wpkxgtukv{ }u"Tcf kckqp"Vj gtcr { "Uwf gpvu"cpf " Hcewn\{"ecp"wkrk| g"\yj g"tcf kckqp"rcdqtcvqt { 0

- "' Vj g'uwf gpv'ecppqv'tcf kcvg''cpqvj gt''r gtuqp''kp''vj g''rcdqtcvqt { 0'Vj g''rcdqtcvqt { 'ku''hqt'<u>'vgcej kpi</u> " r wtr qugu''qpn( ''cpf '<u>'ecppqv</u>''dg''wugf 'hqt''f kci pqugu''qt''vtgcvo gpv0
- "" Uwf gpwl'y j q"gzr qug"cpqyj gt"r gtuqp"ctg"uwdlgev'\q"loo gflevg"f kno knucn'htqo "vj g"r tqi tco 0
- "" Gpgti k kpi "vj g'hkpgct"ceegrgtcvqt'ku'qpn( "cmqy gf "y kyj "r gto kuukqp'htqo "r tqi tco "qhhkelcnu0
- "" Cm'uwf gpul'cpf 'heewn "y kn't go ckp'qwukf g'y g't qqo 'y j gp'cp'ko ci g'ku'o cf g0
- "" Rgtuqpcrif quko gygtu'o wuy'dg'y qtp''y j gp'kp''erkplecrictgcu0
- "" Gcej 'uwf gpv'ku'gzr gevgf 'vq't gwtp'gs wkr o gpv'cpf 'qvj gt'vgcej kpi 'ckf u'vq'vj gkt'f guki pcvgf ''
  mecvkqp0
- "" Hqqf "cpf "f tkpmu"ctg"pqv'r gto kwgf "kp"vj g"rcdqtcvqt {0
- "" S works "cuuwtopeg"gs wkr o gpy'uj qwrf "pqy'dg"tgo qxgf "htqo "vj g"rcdqtcvqt { "qt"ercuutqqo 0
- "Uwf gpwl'wwkpi "y g'hodqtovqt { "qwwlf g"yj g"tgi wrotn{ "wej gf wrgf "rodqtovqt { "vko gu"o ww/oumhqt" r gto kwkqp0"Vj gug"uwf gpwl'otg"tgur qpuklng"hqt"uggkpi "yj ov'yj g"qxgtj gof "rki j w. "uchg"rki j w. "cpf "yj g"o cej kpg"otg"wtpgf "qhh0Cff kkqpom{ . "gpuwtg"yj ov'yj g"rodqtovqt { "ku"nqengf "qt"yj ov'yj g" f qqtu"otg"emugf 0
- "" Uwf gpw'y km'pqv'dg"cmqy gf "\q"wwg"qt"j cxg"\y gkt "egm'r j qpgu"qp"y j krg"c"r cwlgpv'ku"qp"\y g" vtgcvo gpv'\cdrg0

# FWMG'TCFKCVKQP'VJGTCR['RTQITCO'QHHKEKCNU'CPF'RTGEGRVQTU

 $\label{thm:condition} Vlo q'i {\ "Ecurcpq<\ Rtqi tco "Fltgevqt." O C"T000$\ V+$ \\ J gpt {\ "Flc|<\ Ej lgh" Vj gtcr km' "Enkplecn" Eqqtf kpcvqt "DUTV" TV" $\ V+" j gpt {\ Glc| B f wngQf w}$ \\ Mctklgg" Dtwo hlgrf<\ Ngcf "Enkplecn" Rtgegr vqt "T000$\ T+" $\ V+" inctklggQltwo hlgrf B f wngQf w$ \\ Uj gmt {\ "J cty|<\ Rtgegr vqt llfourtwevqt" DUTV" T000$\ T+" $\ V+" inj gmt {\ Glcpcrf kB f wngQf w}$ \\ Ectrk" Ueqw Rtgegr vqt llfourtwevqt "CCUT000$\ V+" ectrl the qwB f wngQf w$ \\ V{rgt "Ulo r uqp/Rtgegr vqt llfourtwevqt" DUTV" T000$\ V+" \ "v{rgt(hlo r uqpB f wngQf w}$ \\ Ecully "Eqppgt/Rtgegr vqt llfourtwevqt" T000$\ V+" ecully QeqppgtB f wngQf w$ }$ 

"' CHHKNKCVGUKF wng'O ckp'Eco r wu'Tcf kcvkqp'Qpeqmi { "F gr ct vo gpv

## I NOUCT | 'OHKO ROTVCPV'VGTO U

EQO RGVGP V<Vj g"cdkrkv{ "vq"hvvpevkqp"y kyj "rko ksgf "uwr gtxkukqp"cpf "cuuwo g"vj g"tgs wkt gf "f wkgu"cpf "tgur qpukdkrkkgu0

 $EQO\,RGVGP\,E[\ 'GXCNWC\,VKQP\,'VGUV<'Vj\,g''r\,tqegf\,wtg''wugf\,''vq''cuuguu''c''uwwf\,gpvou''r\,gthqto\,cpeg''cpf\,''$ npqy ngf i g0

IP KVICN'EQO RGVGP E[ "VGUV<Vj g'hktuv'eqo r gvgpe{ "gxcnvcvkqp"qh"c'ur gekhle'tcf kcvkqp"r tqegf wtg0

 $EQP\ VKP\ WGF\ "EQO\ RGVGP\ E[\ "VGUV<"C"\ eqo\ r\ gvgpe\{"gxcnwcvkqp"cuuguukpi\ "qpi\ qkpi\ "eqo\ r\ gvgpeg"\ kp"\ r\ tgxkqwun("eqo\ r\ ngvgf\ "ecvgi\ qtkgu0)$ 

 $\label{thm:cnivgto} \begin{tabular}{l} HMP CNIVGTO \begin{tabular}{l} PCNIVGTO \begi$ 

FKTGEV"UWRGTXKUKQP <"C 'tgi kungtgf 'tcf kcvkqp"'yi gtcr kun'ku"r j {ukecm{ 'r tgugpv'yi tqwi j qww'yi g"gpvktg" gzco kpcvkqp"qt"r tqegf wtg0

UKO WNC VGF "RTQEGF WTG<"Vj g"uwf gpv'wugu"c"o qf gri'qt"r j cpvqo "\*pqv'c"r cvkgpv+"vq"f go qpuvtcvg" r tqhkekgpe { 'kp"c"ur gekhle "vtgcvo gpv'r tqegf wtg"kh'vj g { "ecppqv'r gthqto "kv'qp"c"r cvkgpv'kp"vj g"enkpke0'Vj g" vtgcvo gpv'o cej kpg"y km'pqv'dg"gpgti kj gf "kh'c"uko wrcvgf "vtgcvo gpv'eqo r gvgpe { 'ku'r gthqto gf 0

VTGC VO GP V"UKO WNC VKQP "RT QEGF WTGU\*C "tcf kqi tcr j ke llmvqtqueqr ke "qt "E V"uko wrcvqt" r tqegf wtg "wugf "vq "r qukkqp"c "r cvkgpv."kf gpvkhi{ "kuqegpvgtu."cpf "f grkpgcvg"vtgcvo gpv'r ctco gvgtu"dghqtg" kpkkcvkpi "tcf kcvkqp"vj gtcr { "vtgcvo gpvu0

# F guet kr vkqpu'qh'E qwt ugu'c pf 'Rt qi t co 'Rt qi t guukqp/'Ugo guvgt 'Uej gf wgu

#### HemiUgo guvgt

# TV'ZZ/Tcf kcvkqp"Vj gtcr { 'Rcvkgpv'Ectg'( 'Kpvgtcevkqp

C''uwf {"qh'y g'r j {ulecn'cpf 'r u{ej qmi kecn'pggf u'qh'y g'tcf kcvlqp"qpeqmi {"r cvlgpv'cpf 'hco kn{0' Kpenvf kpi "r cvlgpv'tcpulgt"\gej pls wgu. 'kpvgtcevlqp"y kj "y g"vgto kpcm( 'km "xkcn'uki pu. "cf o kpkutcvlqp"qh" kplgevlqpu. "r j cto cegwkecnu. "eqpvtcuv'o gf kc. "KX"cpf "wvdg"o ckpvgpcpeg. "vtkpct { "ecy gvgtk cvlqp." cf o kpkutcvlqp"cpf 'kpvgtrtgvcvlqp"qh"GEI u. "go gti gpe{ "o gf kecn'ukwcvlqpu. "kphgevlqwu"f kugcug" r tqeguugu. "vpkxgtucn'r tgecwkqpu. "cpf "ERT"egtvlhlecvlqp0\*5"ET+"Hcm'Tqqo / VDF "Kpuvtvevqt<" Ecverpq IF kc

## TV/Enkplecn'Tcf kcvkqp'Opeqqqi {

Vj g'eqwtug''gzco kpgu''y g''j kurqr cy qrqi { ."grkqrqi { ."cpf "gr kf go kqrqi { "qh'iukg/ur gekhke'ecpegtu0'K/cnq" f kuewuugu''r tqi pqurke'kpf kecvqtu.'kpenwf kpi ''f kci pqurku.''urci kpi .''tqwgu''qh''o grcurcugu.''cpf ''y g'ko r cev'qh'' y gug''hcevqtu'qp''htcevkqp''cpf ''qvcn'f qug0'Vj g''eqwtug''eqpvgpv'y krn'cnuq''kpenwf g''f kuewuukqpu''qh'' guvcdrkuj gf "ej go qvj gtcr { "cpf ''r cvkgpv'urti gt { "qr vkqpu''y j krg''qwej kpi "qp''pgy "cpf "go gti kpi " vtgcvo gpvu0'\*5'ET+'Hcm'\ qqo ''j { dtkf ''Kpurtwevqt<'Dqrnkpi gt

## TV'ZZ/Tcf kcvkqp'Rj {ukeu

Vj ku'eqwtug''eqxgtu''y g''dcukeu''qh'kqpk kpi "cpf "pqp/kqpk kpi "tcf kcvkqp."cvqo ke"cpf "pwergct"untwewtg." dcuke"pwergct"cpf "cvqo ke"r j {ukeu."tcf kqcevkxg"f gec{."vj g'kpvgtcevkqp"qh'tcf kcvkqp"y kyj "o cvgt."cpf "tcf kcvkqp"f gvgevkqp"cpf "f quko gvt{0\*5"ET+"Hcm"VDF "Kourtwevqt<"Mqy cnunk

# TV'ZZ/Ulo wrckqp"( "Vtgcvo gpv'Vgej pls wgu'K( "KK

Uwf gpwi'f go qpuntcyg''ceewtcyg''uko wrwlqp''cpf ''tgcvo gpv''ugv'wr i'r cykgpv'ko o qdkrk cykqp''hqt''dcuke''vq'' kpygto gf kcyg''tef kcykqp''y gter { ''r tqyqeqni'kp''c''rcdqteyqt { ''ugwkpi 0'Vj ku''j cpf u/qp''eqwtug''kpenwf gu'' npqy kpi ''y g''r tceykecn''crr rhecykqpu''qh'tef kcykqp''y gter { .''wukpi ''crr tqr tkcyg''ko o qdkrk cykqp''f gxkegu.'' cpf ''ukwcykqpen''cy ctgpguu''qh'r cykgpv'pggf u''xu''r j { ukekcp''qtf gtuô o cuygt { ''qh''dcuke''eqpegr wi'cpf '' yej plecn''cur gewi'qh'tef kcykqp''qpeqmi { 0'Vqr keu' kpenwf g''ewuxqo ''dnqem''o qrf .''ko o qdkrk gt''hcdt kecykqp.'' kpygpukhkgf ''o qf wrcygf 'tef kcykqp''y gter { ''\*KO TV+''uygtgqyceyke''tef kquwti gt { .''kpytcqr gtcykxg'' tef kqy gter { .''cpf ''dtcej { y gter { ô r ctykekr cykqp''kp''rcd''uko wrcykqp''ceykxkkgu''q''tgkphqteg''tqwkpg'' uko wrcykqp''yej pks wgu0

\*3'ET+'Hcm'Vj IU: tkpi 'Y / "VDF 'Kouxtwevqtu<'Uko r uqp. 'J ctvj . 'Ueqw. 'Eqppgt

# Urthpi 'Ugo gungt'' VIVj 'Vho g'VDF'ht'O Y 'Vho g'VDF/J {dthf

## TV'ZZ/Tcf kqdkqrqi { ITcf kcvkqp'Rtqvgevkqp

Cp"kpvtqf wevkqp"\q"tcf kcvkqp"dkqqqi {0"Vj ku"eqwtug"eqxgtu"\j g"dkqqqi kecn'ghhgew"qh'tcf kcvkqp."kpenwf kpi "
o gej cpkuo u"qh"F P C"f co ci g"cpf "pqto cn'vkuuwg"kplwt {0"Vj g"r tkpekr cn'eqpvgz v'ku'tgrgxcpv'vq"tcf kcvkqp"
y gtcr {"vtgcvo gpv0Vj ku"eqwtug"y kni'cnuq"f kuewuu"\j g"r tkpekr rgu"qh'tcf kcvkqp"r tqvgevkqp."f gcnkpi "y kyj "
o clqt"hqto u"qh"kqpk| kpi "cpf "pqp/kqpk| kpi "tcf kcvkqp."\j g"r j {ukeu"cpf "ej go kuvt {"qh"tcf kcvkqp"dkqqqi {."
dkqqqi kecn'ghhgevu"qh"kqpk| kpi "cpf "pqp/kqpk| kpi "tcf kcvkqpu"\"rcugtu."gve0+"cv'egmwct"cpf "vkuuwg"ngxgqu."
tcf kcvkqp"r tqvgevkqp"s wcpvkvkgu"cpf "vpkvu."o gf kecn'j gcnyj /r j {ukeu"kuvwgu"kp"enkpkecn'gpxktqpo gpvu."
tcf kcvkqp"uchgv{"tgi wcvkqpu."cpf "dcuke"r tqdrgo /uqrxkpi "kp"tcf kcvkqp"uchgv{0\%5"ET+"Ur tkpi /"kpuvtwevqt<"\Q\p\$F cpkgn

## TV'ZZ'/Etquu/Ugevkqpcn'Cpcvqo {

Vj ku'eqwtug'tgxkgy u'vj g'y kf gn{ 'wugf 'ko ci gu'kp''yj g'K TV'cur gev'qh'tcf kcvkqp''yj gtcr { 'vtgcvo gpv'cpf '' gzco kpgu'tcf kqi tcr j ke'r cvj qrqi { 'cpf 'f kugcug'r tqi tguukqp0 \*5'ET+'Ur tkpi 'O IY ''VDF 'Kpuvtwevqt<'F kc|

## TV'ZZ/Tcf kcykgp''Vi gtcr { "Vtgcvo gpv'Rreppkpi '( 'F quko gyt {

F go qputtcyg"r tqhkekgpe { "kp"gz vgtpcn"cpf "grgevtqp"dgco "vtgcvo gpv"r rcppkpi "cpf "ecrewrcvkqpu0"Eqpvtcuv" cpf "eqo r ctg"j cpf "ecrewrcvkqpu"y kj "eqo r wgt/i gpgtcvgf "ecrewrcvkqpu0"Ukg/ur gekhke "gzco r rgu"qh" vtgcvo gpv"r rcppkpi "cpf "f quko gvt { 0C r r necvkqp"qh"dtcej { v g gcr { "ecrewrcvkqpu."kpenwf kpi "uqwteg" f kuvtkdwkqp"cpf "ko r rcpv"f wtcvkqp0\*5"ET+"Ur tkpi "VDF"J { v dtkf v qqo "Kouvtwevqt<"Tqgj o

#### TV'ZZ/Tgugctej 'O gvj qf qrqi { 'kp'Tcf kqrqi ke''Vgej pqrqi { 'K

 $\label{thm:convergence} Cp''kpf gr gpf gpv'tgugctej 'r tqlgev'y ky ''c''hcewn{ ''cf xkuqt0Eqpugpv'qh'y g''kpuxtwevqt''ku''tgs wktgf 0*4'ET+'' Kpuxtwevqt<''Tqf tki wgulEcwrcpq$ 

#### Uwo o gt 'Ugo guvgt

## TV'ZZ/Tcf kcvkqp"Vi gtcr { 'Tgi knt { 'Tgxkgy

Ecr uvqpg"eqwtug"qh"y g"r tqi tco 0'U{ pyj guku"cpf "cr r rlecvkqp"qh"f kf cevke"cpf "erkpkecn'eqwtugu0' Vguv vcmkpi "uvtcvgi kgu"cpf "tgxkgy kpi "hqt"yj g"CTTV"pcvkqpcn'egtvkhkecvkqp"gzco kpcvkqp0 \*4"ET+"Uwo o gt"VDF "J {dtkf "Kouvtwevqt<"Uvchh

TV'ZZ/Tgugctej 'O gvj qf qmi { 'kp'Tcf kqmi ke''Vgej pqmi { 'KK Cp'kpf gr gpf gpv'tgugctej 'r tqlgev'y kj ''c'hcewn{ ''cf xkuqt0Eqpugpv'qh'vj g'kpuvtwevqt'ku'tgs wktgf 0' \*Rqvgpvkcn'vq''vgco ''wr ''y kj ''c'o gf kecn'r j { ukeu'uwwf gpv+'\*3ET+'Kpuvtwevqt<'Tqf tki wgu!Ecvcmpq

# TV'ZZ/Enkplecn'Gf weckqp''KKKK

Vj g'eqwtug'eqpukuu''qh''uwr gtxkugf 'erkpkecn'r tcevkeg''kp''r gthqto kpi 'tcf kcvkqp''yi gtcr { ''cpf ''uko wrcvkqp'' r tqegf wtgu.''y kyi 'tqvcvkqpu''kpeqtr qtcvkpi ''pwtukpi .''f quko gvt { .''cpf ''r j { ukeu''kp''c''erkpkecn'ugwkpi ''cpf lqt'' cp''gpgti k| gf ''rcd0%5''ET+''Hcm(O Y H'( ''Urtkpi /'VTH'2: 223852''%'ET+''Uwo o gt/'O/T''2: 223852'' Uvchi



# TCF ICVIQP "VJ GTCR[ "RTQI TCO

TCF KCVKQP "VJ GTCKL "KTQT TCO
RQNÆ[ 'cpf 'J CPFDQQM'TGXKGY  Vj ku'eqo r tgj gpukxg'j cpf dqqm'y cu'gzr nckpgf ''\q'uwwf gpvu'f wtkpi 'c'o ggvkpi 'j gnf ''qp  ——————————————————————————————————
Eqpugs wgpegu'y gtg"cnq"tgxkgy gf. "y j gtg"crrrkecdrg0
Ki'crrhecdng.'vj g'inwf gpv'ihwgf 'dgnyy 'y knit geglasg'c'eqr{'qh'cp{'t gxlugf 'r qrle{'y kej 'c'hwni gzrn: pcvlqp'cpf 'cp{'eqpugs wgpegu0
KTGEGKXGF 'CPF 'TGCF 'VJ G'UVWFGP V'J CPFDQQM'HQT'UVWFGP V'TCFKCVKQP '' VJ GTCRKUVUJKCI TGG'VQ'CDKFG'D[ 'VJ G'EQPFKVKQPU'QWVNKPGF 'KP'VJ G'RQNKEKGU' CPF'TGI WNCVKQPU'HQT''VJ G'TCFKCVKQP''VJ GTCR[ 'RTQI TCO0
UM PCVWTGaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa FCVGaaaaaaaaaaaaaaaaaaaaaaa
Rtqi tco "F ktgevqt lRtqi tco "Qhhlekcn

# TCF KCVKQP'VJ GTCR[ 'RTQI TCO UVCVGO GP V'OH'E QP HKF GP VKCNKV]

Kci tgg"\q"r tqvgev"\j g"eqphkf gpv\cn\\{."r t\xce\{"cpf "ugewt\x\{"qh'r c\kgpv."uwf gpv."r gtuqppgn "dwu\pguu"cpf "qvj gt "eqphkf gpv\cn"ugpuk\xg"grgevtqp\ke"qt "r tqr t\kgvct \{ "kphqto cv\qpp"\eqphkf gpv\cn" \\$Eqphkf gpv\cn" \\$Eqphkf gpv\cn" \\$F wng"\Wp\kxgtu\x\\ "F wng"\Wp\kxgtu\x\\ "J gcnj "U\{ugo "cpf "vj g"Rt\xcvg"F \kci pquv\ke"En\p\ke" \eqngev\xgn\. "\$F wng\$+"htqo "cp\{"uqwteg"cpf "\p"cp\{"hqto "\cm\pi gct"\qp"o \{"lqd"cpf "o wuv'r tqvgev'\penwf g"vj g" \hqmqy \kpi ."co qpi "qvj gtu\c\"

RCVKGP VU'CP F IQT'HCO KN[ 'O GO DGTU'\*uwej "cu'r cvkgpv'tgeqtf u "eqpxgtucvkqpu "cpf 'dkmlpi " lphqto cvkqp+

O GF KE CN'UVCHH.'GO RNQ[ GGU.'XQNWPVGGTU.'UVWFGPVU.'qt 'EQPVTCEVQTU'\*uwej "cu" uqekcn'ugewtky"

pwo dgtu."gxcnxcvkqpu."ucretkgu."qvj gt"enkplecnlkphqto cvkqp."go r m{o gpv'tgeqtf u."f kuekr nkpct{"cevkqpu+" DWUKP GUU'KP HQTO CVKQP '\*uwej "cu'hkpcpekcn'tgeqtf u."tgugctej "qt"enkplecn'tkcn'f cvc."tgr qt vu." eqpvtcevu."eqo r wygt 'r tqi tco u. 'vgej pqnqi {+

**VJ KTF 'RCT VKGU'\***uwej "cu'xgpf qt"eqpvtcevu."eqo r wgt "r tqi tco u."\gej pqrqi {+ QRGTC VKQP U."RGTHQTO CP EG"KO RTQXGO GP V."S WCNKV[ "CUUWTCP EG."O GF KECN"QT" RGGT"TGXKGY

\*iwej "cu'wkrk{ cykgp."f cvc"tgrqtvu."s wcrkx{ "kortqxgogpv."rtgugpvcykqpu."uwtxg{ "tguwnu+

#### KCI TGG'VI CV<

- 30' Ky kmi'r tqygev'F wng'Eqphlf gpylcni'Kphqto cylqp'lp'cp{"hqto "cpf 'hqmqy "F wng'r qrlelgu." r tgegf wtgu. "cpf "qyi gt'r tlxce{ "cpf "lygewtk\f" tgs wltgo gpyl0
- 40' KY KNN'P QV'r quv'qt "f kuewuu'cp { "F wng'Eqphkf gpvkcn'lkphqto cvkqp." kpenwf kpi "r cvkgpv'lphqto cvkqp." r cvkgpv'r kewt gu'qt "xkf gqu."cpf "F wng'hkpcpekcn'qt "r gtuqppgn'kphqto cvkqp."qp"o { "r gtuqpcn'uqekcn'o gf kc" uksgu'uwej "cu'Hcegdqqm'qt "Vy kwgt0KY KNN'P QV'rcng'r j qvqu'qh'r cvkgpvu'hqt "r gtuqpcn'uwg'y kyj "o { "egmi" r j qpg"qt "uko krct"o gyj qf u0KY KNN'P QV'r quv'Eqphkf gpvkcn'kphqto cvkqp. "kpenwf kpi "r cvkgpv'r kewt gu."qp" F wng/ur qpuqtgf "uqekcn'o gf kc"uksgu'y kyj qwv'yj g"crrtqrtkcvg"r cvkgpv'cwyj qtkl cvkqp"kp"ceeqtf cpeg'y kyj " o cpci go gpv'crrtqxcn'cpf "F wng'r qnkekgu'cpf "r tqegf wtgu0
- KY KNN'eqo r ngw'cmltgs wktgf "r tkxce { "cpf "ugewtk\{ "qhlEqphkf gpvkcnlKphqto cvkqp"\tckpkpi 0 KY KNN'QP N[ "ceeguu'lphqto cvkqp"\j cvlKpggf "hqt"o { "lqd"qt"ugtxkeg"cvlF wng0
- 70" KY KNN'P QV'ceeguu. 'uj qy . ''ymm 'wug. 'tgrgcug. 'g/o ckn 'eqr { .'i kxg. 'ugm 'tgxkgy .'ej cpi g'23 "f kur qug''qh" Eqphkf gpvkcn 'Kohqto cvkqp 'wprguu'kv'ku'r ctv'qh'o { "lqd"qt 'vq"r tqxkf g'ugtxkeg''cv'F wng0 K6'kv'ku'r ctv'qh'o { "lqd"qt 'vq"r tqxkf g'ugtxkeg''cv'F wng0 K6'kv'ku'r ctv'qh'o { "lqd"qt 'vq"r tqxkf g'ugtxkeg''vq"f q'cp{ "qh'y gug''cumu. 'Ky kmhqmqy 'vj g'eqttgev'r tqegf wtgu'\*uwej "cu'uj tgf f kpi "eqphkf gpvkcn'r cr gtu'wukpi "eqphkf gpvkcn'Uj tgf /kû "mqem'dkpu+"cpf "qpn("ceeguulwug''y g'o kpko wo "pgeguuct { "kohato cykup'ya "eqo r mye''yi g'tgs wkt gf 'ycum0
- pgeguuct { 'kphqto cvkqp''vq''eqor ngvg''vj g''tgs wktgf ''cum0 80' Y j gp''o { 'y qtm'qt 'ugtxkeg''cv'F wng''gpf u. 'K'y km'pqv'f kuenqug''cp { 'Eqphkf gpvkcn'Kphqto cvkqp. ''cpf ''K'y km'pqv'' vcng''cp { 'Eqphkf gpvkcn'Kphqto cvkqp ''y kyj ''o g kh''Kngcxg''qt''co ''vgto kpcvgf 0
- 90' KtiKo ww'\cng'Eqphkf gp\kcniKphqto c\kqp"qlhiF wng'r tqr gtv{.'Ky knif q'uq'qpn{'y ksj 'o {'uwr gtxkuqt).u'' r gto knukqp"cpf 'kp"ceeqtf cpeg'y ksj 'F wng'r qrkekgu'cpf 'r tqegf wtgu0Ky knir tqvgev'\sj g'r tkxce{'cpf '' ugewtk\{'qhi\sj g'kphqto c\kqp'kp'ceeqtf cpeg'y ksj 'F wng'r qrkekgu'cpf 'r tqegf wtgu.'cpf 'Ky knitgwwtp'k\sy'\q'' F wng0

: 0' KliKj cxg"ceeguu'\q'F wng)u'eqo r wygt 'u\{ uvgo \*u+; 'Ky kmlhqmqy '\j gkt 'Ugewtg'U\{ uvgo 'Wuci g'O go qu." y i kej "ctg"cxckrcdrg"ltgo "vi g"U( uvgo )u"Kohato cvkap"Ugewtkx{ "Cf o kokuntcvat "u+0 : 0' KY KNN'P OV'wug'cpqyi gt u'Wugt "KF "\*P gv'KF +"cpf "r cuuy qtf "vq "ceeguu'cp{ "F wng "u{ uwgo ."cpf "Ky km'pqy" uj ctg"o {"Wugt"KF "\*P gv"KF +"r cuuv qtf "qt"qvi gt "eqo r wgt "r cuuv qtf "v kij "cp{qpg0 32." KY KNN'etgcvg'c'intqpi 'r cuny qtf, 'cpf 'ej cpi g'k/lp''ceeqtf cpeg''y kij 'F wng'r qrkekgu''cpf 'r tqegf wtgu0'K y kmipqwh{"y g"FJ VU"Ugewtk/{"Qithleg"cpf "ej cpi g"o {"r cuuy qtf "ko o gf kcvgn("khi'uqo gqpg"npqy u"qt" wugu"o {"r cuuy qtf 0Ky km'cum'o {"uwr gtxkuqt"kh'Kf q"pqv'mpqy "j qy "vq"ej cpi g"o {"r cuuy qtf 0 330' KY KNN'ygnio {"uwr gtxkuqt"cpf "QKV"qt"F J VU'kh"Ky kpm'uqo gqpg"mpqy u"qt"o c{"wug"o {"r cuuy qtf "qt"kh Kco "cy ctg"qh"cp{"r quuldng"dtgcej gu"qh"eqphkf gp\kcrk\{"c\v"F\wng0 KY KNN'nqi 'qw'qt''ugewtg''o { 'y qtm.vc.vkqp'y j gp''Kngcxg'yj g'eqo r wgt'wpcwgpf gf 0 350' KY KNN'QPN | "ceeguu'Eqphkigpvkcn'Kohqto cvkqp"cv'tgo qvg'nqecvkqpu'y ky "eqpugpv'htqo "o { 'uwrgtxkuqt0 360' Ki'Kco "cmqy gf "vq"ceeguu'Eqphkf gpvkcnlKohqto cvkqp"tgo qvgnf. "KCO "TGURQP UKDNG"hqt "gpuwtkpi "vj g" rtkxce{ "cpf" ugewtk/ "qh'vj g'kphqto cvkqp"cv'CP [ "mecvkqp" \*g0 0" j qo g. "qhhkeg. "gve0+. 370' KY KNN'P OV'uvatg"Eqplikf gpykcrl'Kohato cykap"qp"pap/F wng"u{ uvgo u "koenyf koi "qp"r gtuapcrl' KWPFGTUVCPF'\(\hat{i}\) cv'o { "ceeguu'\q"Eqphkf gpvkcrl'Kphqto cvkqp"cpf "F wng"g/o ckrl'ceeqwpv'o c{ "dg"cwf ksgf 0 3: 0' Kriktgegkxg"r gtuqpcnliphqto cvlqp"ij tqwi j "F wng"g/o ckriqt"qyi gt"F wng"u{ uxgo u "KCI TGG"ij cv" cwj qtkl gf "F wng"r gtuqppgn'o c{ "gzco kpg"kv."cpf "Kf q"pqv"gzr gev"F wng"\q"r tqvgev'k0 KWP F GTUVCP F "vi cv'F wme"o c{ "vcme"cv c{ "at "nko kv'o { "ceeguu"cp{ vko g0} 3:0' Kwpf gtuvcpf "vj cv'o { 'hcknwtg'\q"eqorn { "y kyj "vj ku''Citggo gpv'o c { "tguwn'kp"vj g'\gto kpc\kqp"qh'o { " tgrevlapuj kr"y kaj "F wng"epf lat"ekxkrijat"etko koeningi eni'r gpenkgu0"D{"uki pkoi "vj ku."Kei tgg"vj ev"Kj exg" tgcf. "wpf gtuvcpf."cpf "v km'ego r n{ "v ky 'v ku'Ci tggo gpv0 Uki pcwtg" Fcvg

/'Tgx0314247

Rtkpv'Hwn'P co g" F gr v0

# Tcf kvkqp'Vj gtcr{'Rtqi tco 'Tgrgcug'qh'Kphqto cvkqp

Kwpf gtuvcpf ''y cv'o { ''eqpugpv'tgo ckpu'xcnkf ''cu''nqpi ''cu''Kco ''gptqngf 'kp''y g'Tcf kcvkqp''Vj gtcr { ''Rtqi tco 0'Kcnıq''wpf gtuvcpf ''Kecp''tgxqng''y ku''eqpugpv''cv''cp{ ''vko g0J qy gxgt.''tgxqnkpi ''y ku''eqpugpv'' y qwf ''tgpf gt''o g''kpgrki ktlng''hqt ''enkplecn''gf wecvkqp''cpf ''y g''Rtqi tco 0

Keqphto "vj cv"Kwpf gtuvcpf "vj g"r wtr qug"cpf "eqpvgpv"qh"vj ku hqto 00 { "uki pcwtg"dgmy "kpf kecvgu"o { "eqpugpv0

# RCI G'KUNGHV'DNCPM'QP'RWTRQUG