Case: 19-16122, 09/25/2020, ID: 11836941, DktEntry: 256, Page 1 of 83

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HGFGTCN"VTCFG"EQOOKUUKQP."

Rnckpvkhh/Crrgnngg."

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11

Qh"Eqwpugn<" KCP"T ("EQPPGT" Fktgevqt" FCPKGN"HTCPEKU" Fgrwv{"Fktgevqt" LQUGR J "DCMGT" I GQHHTG [" I TGGP" TCLGU J "LCOGU" J GCV J GT"LQ J PUQP" OCTM" Y QQF Y CTF"

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C TKP I VQP " Cuukuvcpv" I gpgtcn"Eqwpugn"

DTKCP" J 0"HNGVEJGT" Urgekcn"Eqwpugn"

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DCEM I TQWPF"

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- $\hat{A} \quad Vjqug"uc \circ g"vjtgcvu"rtgenwfg"QGOu"htq o "nkvkicvkpi"qt"ctdkvtcvkpi" \\ \tilde{o}Swcneq \circ o øu"tq{cnv{"tcvguö"qt"} \tilde{o} y jgvjgt"Swcneq \circ wcneq } \hat{A} \quad \hat{A} \quad o$

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Lwf i g"Mqj "hckv j hwm { "cr rnkgf"v j cv"vgce j kp i 0"U j g"hqwpf."cu"c"hcevwcn" o cvvgt." v j cv"v j g"dwnm"qh" S wcneq o o øu"uq/ecmg f" rcvgpv"tq { cnvkgu"ctg"cvvtkdwvcdng"pqv"vq"kvu" rcvgpvu."dwv"vq"kvu"e j kr" o qpq rqn { 0"3GT37 : 0"Etkvkecm { ."v j g"kuuwg"ku"pqv"v j cv" S wcneq o o øu"tq { cnvkgu"gzegg f"v j g"õkpvtkpuke"xcnwgö"qh"kvu" rcvgpvu0"QR650" J ki j " rcvgpv"tq { cnvkgu."d { "v j g o ugnxgu."ctg"pqv"cp"cpvkvtwuv"eqpegtp0"Kpuvgcf."cu"Lwf i g"Mqj " tgeq i pk | g f. "v j g" rtqdng o "ku"v j cv" S wcneq o o øu"õtq { cnvkguö"eqpegcn"c"e j kr/ftkxgp" uwte j ct i g"v j cv"ku"v j g"geqpq o ke"gs wkxcngpv"qh"v j g"hggu"kp"*Wpkvgf"U j qg*"cpf"*Ecnfgtc*0" 3GT68."37 : /84."3 : 6/ : 90"Lwuv"nkmg"v j qug"hggu."v j g"uwte j ct i g"ku"gzvtcevg f"v j tqw i j" o qpq rqn { "rq y gt"cpf" rgpcnk | gu" rwte j cugu"qh"eq o rgvkp i "rtq fwevu0"

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Case: 19-16122, 09/25/2020, ID: 11836941, DktEntry: 256, Page 26 of 83

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Swcneq o oøu" rcvgpvu"kpenwfg egnnwnct uvcpfctf" guugpvkcn" rcvgpvu" *õUGRuö+." pqp/egnnwnct" UGRu." cpf" pqp/UGRu0"" Egnnwnct"UGRu"ctg" rcvgpvu"qp"vgejpqnqikgu"vjcv"kpvgtpcvkqpcn" uvcpfctf/ugvvkpi"qticpk|cvkqpu"*õUUQuö+"ejqqug"vq"kpenwfg"kp" vgejpkecn" uvcpfctfu" rtcevkegf" d{" gcej" pgy" igpgtcvkqp" qh" egnnwnct" vgejpqnqi {0" "UUQu ô cnuq" tghgttgf" vq" cu" uvcpfctfu" fgxgnqr o gpv" qticpk|cvkqpu" *õUFQuö+ ô ctg" inqdcn" eqnncdqtcvkqpu" qh" kpfwuvt{" rctvkekrcpvu" vjcv" õguvcdnkuj" vgejpkecn" urgekhkecvkqpu" vq" gpuwtg" vjcv" rtqfwevu" htq o" fkhhgtgpv" o cpwhcevwtgtu" ctg" eq o rcvkdng" ykvj" gcej" qvjgt0ö"" *Oketquqhv" Eqtr0"x0" Oqvqtqnc."Kpe0.*"8;8"H05f":94.":97"*;vj" HVE X0 S

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⁷ Ceeqtfkpi "vq" Pqmkc"cpf"qvjgt"eq o rcpkgu. "QGO/ngxgn" nkegpukpi "ku" pqy"vjg"kpfwuvt{"pqto0 Ugg"Dt0"qh"Cokewu"Ewtkcg"Pqmkc"Vgejpqnqikgu" $Q\{"cv" 6"* \tilde{o}Tgswktkpi" eqorqpgpv/ngxgn" nkegpukpi" eqpvtcxgpgu" kpfwuvt \{"and a strange and a s$ pqt o u."ngc fu"vq"vjg"CVKU"cpf"VKC"KRT"Rqnkekgu"dgkp i "kpeqpukuvgpv" y kvj"]qvjgt"UUQ"rqnkekgu_."cpf"eqwnf"jcxg"wpkpvgpfgf"eqpugswgpegu"hqt"qvjgt" UGR" jqnfgtu" cpf" vjg" kpfwuvt { "cv" nct i g0ö+="Dt0" qh" C o kewu" Ewtkcg" Fqnd { " Ncdqtcvqtkgu."Kpe0"cv"38"*õVjg"eqpukuvgpv"gzrgtkgpeg"qh"Fqnd{."c"nkegpuqt" vq"vjqwucpfu"qh"nkegpugu"wpfgt"UGRu."ku"vjcv"HTCPF"nkegpukpi"qh"UGRu" vcmgu" rnceg" cv" vjg" gpf/rtqfwev" ngxgn0ö+=" ugg" cnuq" Dt0" qh" C o kek" Ewtkcg" $Eqpvkpgpvcn" Cwvq o qvkxg" U{uvg o u." Kpe0" cpf" F"$ S S vj gpvO gpz S pvkx

 $\label{eq:generalized_states} dgeq og" ~ \tilde{o}fq y puvtgc o ~ \tilde{o}" tgek rkgpvu" qh" vjg" cntgcf {" gzjcwuvgf" rcvgpvu"g o dqfkgf"kp" vjgug" tkxcnuø" rtqfwevu0^8$

Dgecwug" tkxcn" ejkr" o cpwhcevwtgtu" rtcevkeg" o cp{" qh" Swcneq o o øu" UGRu" d{" pgeguukv{." Swcneq o o " qhhgtu" vjgug" eq o rcpkgu" y jcv" kv" vgt o u" õEFOC" CUKE" Citgg o gpvu.ö" y jgtgkp" Swcneq o o " rtq o kugu" pqv" vq" cuugtv" kvu" rcvgpvu" kp" gzej cp i g"hqt"vjg"eq o rcp{" rtq o kukp i "pqv" vq" ugnn"kvu" ejkru" vq" wpnkegpugf" QGOu0⁹ Vjgug" citgg o gpvu." y jkej" guugpvkcnn{" hwpevkqp" cu" rcvgpv/kphtkp i g o gpv" kpf g o pkhkecvkqpu." kpenw fg" tgrqtvkp i " tgswktg o gpvu" vjcv" cnnq y " Swcneq o o " vq" mpq y" vjg" fgvcknu" qh" kvu" tkxcnuø" ejkr" uwr rn{" citgg o gpvu" y kvj" xctkqwu"

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UHIXVHV WR VHOO PRGHP FKLSV WR 2(0V WKDW OLFHQVHV WR SUDFWLFH 4XDOFRPP¶V 6(3V 2 W K RI SDWHQW H[KDXVWLRQ 2(0V FRXOG GHFOLQH N DUJXLQJ LQVWHDG WKDW WKHLU SXUFKDVH RI FK H[WLQJXLVKHG 4XDOFRPP¶V SDWHQW ULJKWV ZL\ &'0\$ RU SUHPLXP /7(WHFKQRORJLHV HPERGLHG 7KLV ZRXOG QRW RQO\ SUHYHQW 4XDO FKLSV REWDLQLQJ WKH PD[LPXP YDOXH IRU LWV SDWHQ LQ 2 (0V KDYLQJ WRRQHS\D\LRQROULHFFIQVLQJ UR\DOWLHV WR SXUFKDVH DQG XVH D FRPSHWLWRU¶V FKL XQOLFHQVHG ,QVWHDG 4XDOFRPP¶V SUDFWLFH DUH ³FKLS VXSSOLHU QHXWUDO²WKDW LV 2(0V SD\ D SHU XQLW OLFHQVLQJ UR\DOW\ WR 4XDOFR SRUWIROLRV UHJDUGOHVV RI ZKLFK FRPSDQ\ W VRXUFH WKHLU FKLSV IURP

\$OWKRXJK 4XDOFRPP¶V OLFHQVLQJ DQG PRG EXVLQHVVHV KDYH PDGH LW D PDMRU SOD\HU L FHOOXODU WHFKQRORJ\ PDUNHW WKH FRPSDQ\ 7KDW LV 4XDOFRPP GRHV QRW PDQXIDFWXUH DQC DQG RWKHU HQG XVH SURGXFWV OLNH VPDUW FD SXUFKDVH DQG XVH 7KXV LW GRHV QRW 3FRP DQWLWUXVW VHQVH2DJDLQVW 2(0V OLNH \$SSOH D WKHVH SURGXFW PDUNHWV ,QVWHDG WKHV 4XDOFRPPPVJWRPHUV

6DPVXQJ SUHVHQWV WKH RQH H[RHQSHWLRQ WR WKLV UXC RI4XDOFRPP¶V 2(0 FXVWRPHUV DQGRQBQP RILWV FRPSHWLW FKLS PDUNHWV 6DPVXQJ /6, LV 6DPVXQJ¶V PRGHP FKLS GL 6XSS G DW +RZHYHU DV 6DSRVXQJ /6, GRHV QRW H[WHUQDOO\ ³6DPVXQJ LV QRW DFRRCPISFIWLWRU >RI4XDOFF FKLSV WR H[WHGDQWDO 2(0V ´

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Swcneq o oøu" eq o rgvkvqtu" kp" vjg" oqfg o "ejkr" octmgvu" eqpvgp f"vj cv" Swcneq o oøu"dwukpguu"rtcevkegu."kp"rctvkewnct"kvu" tghwucn" vq" nkegpug" vjg o." jcxg" jc o rgtg f" qt" unq yg f" vjgkt" cdknkv {"vq" fgxgnqr"cpf"tgvckp" QGO "ewuvq ogt"dcugu."nk o kvg f" vjgkt" itqy vj." fgnc {gf" qt" rtgxgpvg f" vjgkt" gpvt {" kpvq" vjg" octmgv." cpf" kp" uq og" ecugu" hqteg f" vjg o " qwv" qh" vjg" octmgv" gpvktgn {0" Vjgug" eq o rgvkvqtu" eqpvgp f" vjcv" vjku" tguwnv" ku" pqv" lwuv" cpvkeq o rgvkvkxg." dwv" c" xkqncvkqp" qh" Swcneq o oøu" eqpvtcevwcn" eq o okv ogpvu" vq" vyq" egnnwnct" UUQu ô vjg" Vgngeq o owpkecvkqpu" Kpfwuvt {" Cuuqekcvkqp" *õVKCö+" cpf" Cnnkcpeg" hqt" Vgngeq o owpkecvkqpu" Kpfwuvt {" Uqnwvkqpu" *õCVKUö+ ô vq"nkegpug"kvu"UGRu"õvq"cnn"cr rnkecpvuö"qp"HTCP F" vgt o u0; Swcneq o o "cti wgu"vjcv"kv"jcu"pq"cpvkvtwuv"fwv {"vq" fgcn"

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Kp"Lcpwct{"4239."vjg"HVE"uwgf" Swcneq o o "hqt"gswkvcdng" tgnkgh." cnng i kp i " vj cv" Swcneq o o øu" kpvgttgncvgf" rqnkekgu" cpf" rtcevkegu "gzenw fgf" eq o rgvkvqtu" cpf" j ct o gf" eq o rgvkvqp" kp" vjg" o qfg o "ejkr" o ctmgvu."kp"xkqncvkqp"È 7*c+"qh"vjg"HVE"Cev. 37" W0U0E0" È 67*c+." cpf" ÈÈ 3" cpf" 4" qh" vjg" Ujgt o cp" Cev." 37 W0U0E0" ÈÈ 3." 40" " Chvgt" c" vgp/fc{" dgpej "vtkcn." vjg" fkuvtkev" eqwtv"eqpenw fgf"vj cv"õS wcneq o o øu"nkegpukp i "rtcevkegu"ctg"cp" wptgcuqpcdng"tguvtckpv"qh"vtcfg"wpfgt"È 3"qh"vjg"Ujgt o cp"Cev" cpf"gzenwukqpct{"eqpfwev"wpfgt"È 4"qh"vjg"Ujgt o cp"Cev" cpf"gzenwukqpct{"eqpfwev"wpfgt"È 4"qh"vjg"Ujgt o cp"Cev" Oketquqhv"Eqtr0."475"H05f"56."7: ć7; "*F0E0"Ekt0"4223++0""Vjg"fkuvtkev" eqwtv" qtfgtgf" c" rgt o cpgpv." y qtnf y kfg" kplwpevkqp"rtqj kdkvkp i "S wcneq o o øu"akeguu"rtcevkegu0""Kf0"cv": 42ó460

Vjg" fkuvtkev" eqwtvøu" fgekukqp" eqpukuvu" qh" guugpvkcnn {"hkxg" okzgf"hkpfkpiu"qh"hcev"cpf"ncy<"*3+"S wcneq o oøu"õpq"nkegpug." pq" ejkruö" rqnke {" coqwpvu" vq" õcpvkeq o rgvkvkxg" eqpfwev" cickpuv"QGOuö"cpf"cp"õcpvkeq o rgvkvkxg" rtcevkeg]_"kp" rcvgpv" nkegpug" pgiqvkcvkqpuö=" *4+" S wcneq o oøu" tghwucn" vq" nkegpug" tkxcn"ejkr o cmgtu"xkqncvgu"dqvj "kvu"HTCPF"eq o okv ogpvu"cpf"

rgtegpvcig" qh" vjg" rgt/wpkv" octmgvkpi" hwpfu." cu" ygm" cu" vjg" kpegpvkxg" hwpfu0""Kf0

³³ Dgecwug"vjg" fkuvtkev"eqwtv"eqpenwfgf"vjcv" Swcneq o o "xkqncvgf"vjg" Ujgt o cp" Cev" cpf" vjgtgd{" xkqncvgf" vjg" HVE" Cev ô y jkej" rtqjkdkvu" õ]w_phckt" o gvjqfu"qh"eq o rgvkvkqp.ö"kpenwfkpi "Ujgt o cp"Cev"xkqncvkqpu ô kv"fkf"pqv"cfftguu" y jgvjgt" Swcneq o o øu"eqpfwev"eq O

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C o qpi "vjg" cpvkvtwuv"nc y u. "vjg" Ujgt o cp" Cev. "37" W0U0E0 ÈÈ 3." 4." ku" rctvkewnctn{" õk o rqtvcpv" vq" vjg" rtgugtxcvkqp" qh" geqpq o ke"htggfq o "cpf" qwt"htgg/gpvgtrtkug"u {uvg o 0ö""*Wpkvgf" Uvcvgu" x0" Vqreq" Cuuqeu0." Kpe0.*" 627" W0U0" 7; 8." 832" *3; 94+0"" Gpcevgf" kp" 3:; 2." yjgp" vjg" gogtigpeg" qh" vtwuvu" cpf" o qpqrqnkgu" ykvj" vjg" rqygt" vq" uwrrtguu" eq o rgvkvkqp" cpf" ck og f" cv" rtgugtxkpi" htgg" cp f" wphgvvgtg f" eq o rgvkvkqp" cu" vjg" twng" qh" vtc fg0" "Kv" tguvu" qp" vjg" rtg o kug" vj cv" vjg" wptguvtckpg f" kpvgtcevkqp" qh" eq o rgvkvkxg" hqtegu" ykm" {kgn f" vjg" dguv" cnnqecvkqp" qh" qwt" geqpq o ke" tguqwtegu." vjg" nq y guv" rtkegu." vjg" jki j guv" swcnkv {" cpf" vjg" itgcvguv" o cvgtkcn" rtq i tguu." y jkng" cv" vjg"uc o g" vk o g" rtqxk fkp i "cp" gpxktqp o gpv" eqp fwekxg" vq" vjg" rtgugtxcvkqp" qh" qwt" fg o qetcvke" rqnkvkecn" cpf"uqekcn"kpuvkvwvkqpu0

 $P0"Rce0"T\{0"Eq0"x0"Wpkvgf"Uvcvgu."578"W0U0"3."6"*3;7:+0""Kp" rwtuwkv" qh" vjgug" iqcnu." vjg" Ujgtocp" Cev" rtqvgevu" õvjg" htggfqo" iwctcpvggf" gcej" cpf" gxgt{" dwukpguu" 000" vq" eq o rgvg ô vq" cuugtv" ykvj" xkiqt."kocikpcvkqp." fgxqvkqp." cpf" kpigpwkv{" y jcvgxgt"geqpq o ke" o wueng"kv"ecp" o wuvgt0ö""Vqreq" Cuuqeu0."627"W0U0"cv"8320$

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vtcfg0ö""*Cgtqvge*"*Kpvøn*."*Kpe0*"*x0*" *J qpg{ y gn*"*Kpvøn*."*Kpe0*.":58"H05f" 3393." 339:"*;vj" Ekt0" 4238+"*gorjcuku" cffgf+"*ekvkpi"*Co0*" *Pggfng*."*Kpe0*"*x0*"*Pcvøn*"*Hqqvdcnn*"*Ngciwg*."782"W0U0"3:5."3:;ó;2 *4232++0

õTguvtckpvu" vjcv" ctg" pqv" wptgcuqpcdng" rgt" ug" ctg" lwf igf" wpfgt"vjg"÷twng"qh"tgcuqp0øö""*Co0"Gzrtguu*."35: "U0"Ev0"cv"44:5" *swqvkpi" Dwukpguu" Gngeu0" Eqtr0" x0" Ujctr" Gngeu0" Eqtr0. eqwtvu" vq" eqpfwev" c" hcev/urgekhke" cuuguu o gpv" qh" ÷ o ctmgv" rqygt" cpf" o ctmgv" uvtwevwtg" 0 0 0" vq" cuuguu" vjg"]tguvtckpv_øu" *cevwcn* ghhgevø"qp"eq o rgvkvkqp0ö"" *Kf0* *cnvgtcvkqpu"kp"qtk i kpcn+" *gorjcuku"cffgf+*swqvkpi"*Eqrrgtygnf"Eqtr0"x0"Kpfgr0"Vwdg*" *Eqtr*0." 689" W0U0" 974." 98:" *3;:6++=" ugg cnuq" Kp" tg" Pcvøn" Hqqvdcnn"Ngciwgøu"Uwpfc{"Vkemgv"Cpvkvtwuv"Nkvki0.";55"H05f" 3358."3372"*;vj"Ekt0"423;+"*õWpfgt"vjku"twng." yg"gzcokpg" ÷vjg"hcevu"rgewnkct"vq"vjg"dwukpguu."vjg"jkuvqt{"qh"vjg"tguvtckpv." cpf"vjg"tgcuqpu" y j { "kv" y cu"k o rqugf.ø"vq" fgvgt o kpg"vjg"ghhgev" qp" eq o rgvkvkqp" kp" vjg" tgngxcpv" rtqfwev" o ctmgv0ö" *swqvkpi Pcvøn"Uqeø{"qh"Rtqhøn"Gpiøtu"x0"Wpkvgf"Uvcvgu."657"W0U0"89;." 8;4" *3;9:+++0" " õVjg" iqcn" ku" vq" ÷fkuvkpiwku]j_" dgvyggp" tguvtckpvu" y kvj"cpvkeq o rgvkvkxg"ghhgev"vjcv"ctg" jct o hwn"vq"vjg" eqpuw ogt"cpf"tguvtckpvu"uvk owncvkpi"eq orgvkvkqp"vjcv"ctg"kp" vjg" eqpuw o gtøu" dguv" kpvgtguv0øö" " Co0" Gzrtguu." 35 : " U0" Ev0" cv 44:6" *cnvgtcvkqp" kp" qtkikpcn+" *swqvkpi" Nggikp" Etgcvkxg" *Ngcvjgt"Rtqfu*0."773"W0U0"cv"::8+0

Kp" *Co0" Gzrtguu*." hqt" gzcorng." vjg" Uwrtgog" Eqwtv" jgnf" vjcv vjg" rnckpvkhhu" hckngf" vq" oggv" vjgkt" dwtfgp" vq" ujqy" vjcv" cpvkuvggtkpi" rtqxkukqpu" kp" Cogtkecp" Gzrtguuøu" ogtejcpv" citggogpvu ô yjkej" rtqjkdkv" ogtejcpvu" htqo" gpeqwtcikpi" ewuvqogtu" cv" vjg" rqkpv" qh" ucng" vq" wug" qvjgt" etgfkv" ectfu." nkmg" Xkuc." ykvj" nqygt" vtcpucevkqp" hggu ôjcxg" cpvkeq orgvkvkxg" ghhgevu" vjcv" jcto "eqpuw ogtu0"" *Kf0"* cv" 44:2." 44:; ó; 20"" Kpuvgcf." Cogzøu" wpkswg" dwukpguu" oqfgn" cpf" vjg" cpvkuvggtkpi" rtqxkukqpu" kv" tgnkgu" qp" jcxg" *kpetgcugf* eqorgvkvkqp" kp" vjg" etgfkv"ectf"vtcpucevkqp" octmgv"d{"hqtekpi"tkxcnu"nkmg"Xkuc"cpf" Ocuvgtectf" vq" cfcrv" cpf" kppqxcvg." yjkej" jcu" wnvk ocvgn{" dgpghkvgf" eqpuw ogtu" d{" õkpetgcu]kpi_" vjg" swcnkv{" cpf" swcpvkv{"qh"etgfkv/ectf"vtcpucevkqpu0ö""*Kf0*"cv"44;20""Kp"qvjgt"

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Nkmg y kug. "õkh"c" rnckpvkhh"uweeguuhwm { "guvcdnku j gu"c" rtko c" hcekg ecug"wpfgt"È 4"d { "fg o qpuvtcvkp i "cpvkeq o rgvkvkxg"ghhgev." vjgp" vjg" oqpqrqnkuv" oc { "rtqhhgt" c" \div rtqeq o rgvkvkxg" lwuvkhkecvkqpø" hqt" kvu" eqpf wevlö" "Oketquqhv." 475" H05 f" cv" 7 ; " *ekvkp i Gcuvo cp" Mqfcm" Eq0" x0" Kocig" Vgej0" Ugtxu0." Kpe0. 726 W0U0" 673." 6:5" *3 ; ;4++0" " õKh" vjg" o qpqrqnkuv" cuugtvu" c" rtqeq o rgvkvkxg" lwuvkhkecvkqp ô c"pqprtgvgzvwcn" enck o "vjcv"kvu" eqpf wev" ku" kpfggf" c" hqt o" qh" eq o rgvkvkqp" qp" vjg" o gtkvu" dgecwug" kv" kpxqnxgu." hqt" gzc o rng." itgcvgt" ghhkekgpe { "qt" gpjcpegf" eqpuw ogt"crrgcn ô vjgp" vjg" dwtfgp" ujkhvu" dcem" vq" vjg" rnckpvkhh"vq"tgdwv" vjcv" enck o lö" "Kf0"

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J gtg." vjg" fkuvtkev" eqwtv" eqttgevn{" fghkpgf" vjg" tgngxcpv" octmgvu" cu" õvjg" octmgv" hqt" EFOC" oqfgo" ejkru" cpf" vjg" octmgv"hqt"rtgokwo"NVG" oqfgo" ejkru0ö"" Swcneqoo. 633 H0" Uwrr0"5f" cv"8:50"" Pgxgtvjgnguu."kvu" cpcn {uku"qh" Swcneqoo. 633 H0" dwukpguu" rtcevkegu" cpf" vjgkt" cpvkeqorgvkvkxg" korcev" nqqmgf" dg{qpf" vjgug" octmgvu" vq" vjg" owej" nctigt" octmgv" qh" egnnwnct" ugtxkegu" igpgtcm {0""Vjwu."c"uwduvcpvkcn" rqtvkqp"qh" vjg" fkuvtkev" eqwtvøu twnkpi " eqpukfgtgf" cmgigf" geqpqoke" jctou" vq" QGOu ô yjq" ctg" Swcneqooøu" ewuvqogtu. pqv kvu" eq orgvkvqtu ô tguwnvkpi "kp" jki jgt" rtkegu" vq" eqpuw ogtu0""Vjgug" jctou."gxgp"kh"tgcn."ctg" pqv" ôcpvkeq orgvkvxgö" kp" vjg" ctgc" qh" genewukqpct{" eqpfwev" kp" õvjg" ctgc" qh" genewukqpct{" eqpfwev" kp" õvjg" ctgc" qh" ghhgevkxg" eq orgvkvkqp0ö"" Co0"Gzrtguu. 35: "U0" Ev0" cv"44:70

Vjg" fkuvtkev" eqwtvøu" eqpuk fgtcvkqp" qh" cpvkeq o rgvkvkxg" korcevu" qwvuk fg" qh" vjg" tgngxcpv" o ctmgvu" ku" tghngevg f" kp" vjg" yc{"kv" htc og f" cpf" qticpk |gf" vjg" kuuwgu0" "Hqt" gzc o rng." vjg" hktuv." oclqt" rqtvkqp" qh" vjg" fkuvtkev" eqwtvøu" twng" qh" tgcuqp" cpcn{uku" *õCpvkeq o rgvkvkxg" Eqpfwev" Cickpuv" QGOu" cpf" Tguwnvkpi" Jctoö+" rtqxkfgu" c" fgvckngf" ceeqwpv" qh" Swcneq o oøu" õcpvkeq o rgvkvkxg" cevu" cickpuv" QGOuö" xkc" vjg eq o rcp{øu"õpq"nkegpug."pq"ejkruö" rqnke{0"" Swcneq o o. 633"H0" Uwrr0"5f cv"8;969660 [gv" yjgp" vjg" fkuvtkev" eqwtv" ugv" hqtvj" kvu" rtk oct{" vjgqt{" qh" cpvkeq o rgvkvkxg" jcto ô vjcv" Swcneq o oøu"nkegpukpi"tq{cnv{"tcvgu"õk o rqug"c"uwtejctig"qp" tkxcnuø" oqfg o" ejkru.ö" vjgtgd{" kpjkdkvkpi" htgg" cpf" hckt" eq o rgvkvkqp" kp" vjg" tgngxcpv" octmgvu ô kv" fkf" uq" qpn{" kp"

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Ceeqtfkpin{." yg tghtcog" vjg" kuuwgu" vq" hqewu" qp" vjg" korcev." kh" cp{." qh" Swcneqooøu" rtcevkegu" kp" vjg" ctgc" qh" ghhgevkxg"eqorgvkvkqp<"vjg" octmgvu"hqt"EFOC"cpf" rtgokwo" NVG" oqfgo"ejkru0""Vjwu." yg"dgikp"d{"gzcokpkpi"vjg" fkuvtkev" eqwtvøu" eqpenwukqp" vjcv" Swcneqoo" jcu" cp" cpvkvtwuv" fwv{" vq" nkegpug"kvu"UGRu"vq"kvu" fktgev"eqorgvkvqtu"kp"vjg" oqfgo"ejkr" octmgvu0" "Yg" vjgp" eqpukfgt" Swcneqooøu" tq{cnv{" tcvgu." kvu" õpq"nkegpug."pq"ejkruö"rqnke{."cpf"kvu"citggogpvu" ykvj"Crrng" kp"4233"cpf"4235"vq"uwrrn{"cnn"qt"c"uwduvcpvkcn" rqtvkqp"qh"vjg" oqfgo"ejkru"Crrng"wugf"hqt"kvu"rtg/4238" oqfgn"kRjqpgu0

Vj tqwi jqwv" qwt" cpcn {uku." yg" tgxkg y "hqt" engct" gttqt" vjg" fkuvtkev" eqwtvøu" hkp fkp i u" qh" hcev" cpf" yg" tgxkg y "fg" pqxq" kvu" eqpenwukqpu" qh" nc y "cpf" cp{" okzgf" swguvkqpu" qh" nc y "cpf" hcev0"" QpgDgceqp" Kpu0" Eq0" x0" J ccu" Kpfwu0. "Kpe0." 856" H05 f" 32; 4." 32; 8"*; vj "Ekt0" 4233+0

С

$$\begin{split} &\tilde{o}Cu^{"}vjg^{"}Uwrtgog^{"}Eqwtv"jcu"tgrgcvgfn\{"gorjcuk|gf."vjgtg" \\ &ku"\div pq"fwv\{"vq"fgcn"wpfgt"vjg"vgtou"cpf"eqpfkvkqpu"rtghgttgf" \\ &d\{"] & d & vkvtv_{-}] & c & " \\ &\{ & ev & 05\{ c\{ & "8Ojvkpkp0 \\ \end{split}$$

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dwukpguu."htggn{"vq"gzgtekug" jku"qyp"kpfgrgpfgpv" fkuetgvkqp" cu"vq" rctvkgu" ykvj" yjqo" jg" ykm" fgcn0øö" "*Vtkpmq*. 762" W0U0" cv 62: " *cnvgtcvkqp" kp" qtkikpcn+" *swqvkpi" *Wpkvgf" Uvcvgu" x0" Eqni cvg"* ("*Eq0*." 472" W0U0" 522." 529" *3;3;++=" ugg" nkpmNkpg. 777 W0U0" cv" 66: *õCu" c" igpgtcn" twng." dwukpguugu" ctg"htgg" vq" ejqqug" vjg" rctvkgu" ykvj" yjqo" vjg{" yknn" fgcn."cu" ygnn"cu" vjg" rtkegu." vgtou." cpf" eqpfkvkqpu" qh" vjcv" fgcnkpi0ö" *ekvkpi" *Eqni cvg.*" 472" W0U0" cv" 529++0" " Vjku" ku" dgecwug" vjg" cpvkvtwuv" nc yu." kpenwfkpi" vjg" Ujgtocp" Cev." õygtg" gpcevgf" hqt" ÷vjg" rtqvgevkqp" qh" *eqo rgvkvkqp*. pqv" *eqo rgvkvqtu*0øö *Dtwpu ykem" Eqt r0" x0" Rwgdnq" Dq ynóQóO cv." Kpe0*. 64;" W0U0" 699." 6::" *3;99+"*g o rjcuku" cffgf+"*swqvkpi"*Dtq y p"Ujqg"Eq0"x0"Wpkvgf" Uvcvgu.*"592"W0U0"4;6."542"*3;84++0""Qt."cu" yg"tgegpvn{" rwv"kv." kp"c" dkv" oqtg" eqnqthwn"vgtou<"õEq o rgvkvqtu" ctg" pqv" tgswktgf" vq"gpi cig"kp"c"nqxghguv0ö""*Cgtqvge"Kpvøn.*":58"H05f"cv"33:60

Vjg"qpg."nkokvgf"gzegrvkqp"vq"vjku" i gpgtcn"twng"vjcv"vjgtg" ku"pq"cpvkvtwuv"fwv{"vq"fgcn"eqogu"wpfgt"vjg"Uwrtgog"Eqwtvøu" fgekukqp" kp" Curgp" Umkkpi" Eq0" x0" Curgp" Jkijncpfu" Umkkpi" *Eqtr*0."694"W0U0"7:7"*3;:7+0 Vjgtg."vjg"Eqwtv"jgnf"vjcv"c" eqorcp{" gpicigu" kp" rtqjkdkvgf." cpvkeqorgvkvkxg" eqpfwev" y jgp"*3+"kv"õwpkncvgtcn]n{_"vgt o kpcv]gu_"0 0 0"c" xqnwpvct{"cpf" rtqhkvcdng" eqwtug" qh" fgcnkpi.ö" OgvtqPgv" Ugtxu0" Eqtr0" x0" *S y guv"Eqt r*0."5:5"H05f"3346."3354"*;vj"Ekt0"4226+="*4+ õvjg" qpn{"eqpegkxcdng"tcvkqpcng"qt"rwtrqug"ku"÷vq"ucetkhkeg"ujqtv/ vgto "dgpghkvu"kp"qtfgt"vq"qdvckp" jki jgt"rtqhkvu"kp"vjg"nqpi"twp" htq o "vjg"gzenwukqp"qh"eq o rgvkvkqp.øö"*Cgtqvge*"*Kpvøn*.":58"H05f" cv" 33: 6" * swqvkp i " OgvtqPgv" Ugtxu0." 5: 5" H05 f" cv" 3354+=" cp f" *5+ vjg tghwucn"vq" fgcn"kpxqnxgu" rtqfwevu"vjcv"vjg" fghgpfcpv" cntgcf{"ugnnu"kp"vjg"gzkuvkpi"octmgv"vq"qvjgt"ukoknctn{"ukvwcvgf" ewuvq o gtu."ugg OgvtqPgv"Ugtxu0."5:5"H05f"cv"33546550""Vjg" Uwrtgog" Eqwtv" ncvgt" ejctcevgtk gf" vjg" Curgp" Umkkpi gzegrvkqp"cu"õcv"qt"pgct"vjg qwvgt"dqwpfct{"qh"É 4"nkcdknkv{0ö"" *Vtkpmq*."762"W0U0 cv"62;0

Vjg" fkuvtkev" eqwtvøu" eqpenwukqp" vjcv" S wcneq o o øu" tghwucn" vq" rtqxkfg" gzjcwuvkxg" UGR" nkegpugu" vq" tkxcn" ejkr" uwr rnkgtu" o ggvu" vjg" *Curgp" Umkkp i* "gzegrvkqp" kipqtgu" etkvkecn" fkhhgtgpegu" dgv y ggp" S wcneq o o øu dwukpguu" rtcevkegu" cpf" vjg" eqpfwev" cv" Swcneqoo"hktuv"ickpgf"oqpqrqn{"rqygt"kp"vjg"oqfgo"ejkr" octmgv"kp"4228"wpvkn"pqy."kv"gxgt"jcf"c"rtcevkeg"qh"rtqxkfkpi" gzjcwuvkxg nkegpugu"cv"vjg"oqfgo"ejkr"ngxgn"tcvjgt"vjcp"vjg" QGO"ngxgn0

Ugeqpf."Swcneqooøu"tcvkqpcng"hqt"õuykvejkpiö"vq"QGO/ ngxgn"nkegpukpi" y cu" pqv" õvq" ucetkhkeg" u j qtv/vgt o "dgpghkvu" kp" qtfgt" vq" qdvckp" jkijgt" rtqhkvu" kp" vjg" nqpi" twp" htqo" vjg" gzenwukqp"qh"eq o rgvkvkqp.ö"vjg"ugeqpf"gng o gpv"qh"vjg"*Curgp*" *Umkkp i* "gzegrvkqp0""*Cgtqvge*"*Kpvøn*.":58"H05 f" cv" 33:6"*kpvgtpcn" swqvcvkqp" o ctmu" cpf" ekvcvkqp" q o kvvgf+0"" Kpuvgcf." S wcneq o o " tgurqpfgf" vq" vjg" ejcpig" kp" rcvgpv/gzjcwuvkqp" ncy" d{" ejqqukpi"vjg"rcvj"vjcv" y cu"õhct" o qtg"nwetcvkxg.ö"dqvj"kp"vjg" ujqtv"vgto"cpf"vjg"nqpi"vgto."tgictfnguu"qh"cp{"korcevu"qp" eq o rgvkvkqp0" " Swcneq o o. 633" H0" Uwrr0" 5f" cv" 9750" " Vjg" fkuvtkev"eqwtv"kvugnh"cempqyngfigf"vjcv"vjku" y cu"S wcneqo o øu" rwtrqug." qdugtxkpi<" õHqmqykpi" Swcneq o oøu" ngcf." qvjgt" UGR"nkegpuqtu"nkmg" Pqmkc"cpf"Gtkeuuqp"jcxg"eqpenwfgf"vjcv" nkegpukpi"qpn{"QGOu"ku" o qtg"nwetcvkxg."cpf"uvtwevwtgf"vjgkt" rtcevkegu" ceeqtfkpin{00" " Kf0 cv" 9766770 Dgecwug" S wcneq o o øu" rwtrqug" y cu" i tgcvgt" rtqhkvu" kp" dqvj" vjg" ujqtv" cpf"nqpi"vgtou."vjg"ugeqpf"tgswktgf"gngogpv"qh"vjg"*Curgp*" *Umkkp i* "gzegrvkqp"ku"pqv" rtgugpv"kp"vjku"ecug0³⁷

v vkvk Óx"g" rr tvu "6k EgypÌf wev"qÄi

tcvj

³⁷ Vj tqwi j qwv"kvu" cpcn {uku."vj g" fkuvtkev" eqwtv" eqphncvg f" vj g" fguktg" vq" oczkok | g" rtqhkvu" y kvj" cp" kpvgpv" vq" õfguvtq {" eq orgvkvkqp" kvugnh0ö" *Urgevtw o "Urqtvu.*"728"W0U0"cv"67:0""Cu"pqvg f"*uwrtc.*"vj g" i qcn"qh" cpvkvtwuv" nc y "ku"pqv"vq"hqteg"dwukpguugu"vq"hqtg i q" rtqhkvu"qt"gxgp"õ]v_j g"qrrqtvwpkv {" vq" ej ct i g" o qpqrqn {" rtkegu.ö" y j kej "ku"õ y j cv" cvvtcevu" ÷dwukpguu "cew o gpø" kp"vj g"hktuv" rnceg0ö""V*tkpmq.*"762"W0U0"cv"6290"" J gtg."S wcneq o o øu" fguktg"vq" oczk o k | g" rtqhkvu" dqvj "kp"vj g" uj qtv/vgt o "*cpf*"vj g" nqpi /vgt o "wpf gu

Hkpcnn{."wpnkmg"kp"*Curgp"Umkkpi*."vjg" fkuvtkev"eqwtv"hqwpf" pq" gxkfgpeg" vjcv" Swcneq o o "ukpingu" qwv" cp{"urgekhke" ejkr" uwrrnkgt"hqt" cpvkeq o rgvkvkxg"vtgcv o gpv"kp"kvu"UGR/nkegpukpi0"" Kp"*Curgp"Umkkpi*

58

QGO/ngxgn" nkegpukpi" rqnke{." jqygxgt" pqxgn." ku" pqv" cp" cpvkeq o rgvkvkxg"xkqncvkqp"qh"vjg"Ujgt o cp"Cev0

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Eqpeg fkp i "gttqt" kp" vjg" fkuvtkev" eqwtvøu" eqpenwukqp" vj cv" S wcneq o o "ku"uwdlgev"vq"cp"cpvkvtwuv" fwv {"vq" fgcn"wp fgt"*Curgp" Umkkp i*." vjg" HVE" eqpvgp fu" vj cv" vj ku" eqwtv" o c {" pgxgtvj gnguu" jqnf" vj cv" S wcneq o o "gp i c i g f"kp" cpvkeq o rgvkvkxg" eqp f wev"kp" xkqncvkqp" qh" È 40" " Vj ku" ku" uq." vj g" HVE" wt i gu." dgecwug" *3+ õ S wcneq o o "gpvgt gf" kpvq" c" xqnwpvct {" eqpvtcevwcn" eq o o kv o gpv" vq" fgcn" y kvj" kvu" tkxcnu" cu" rctv" qh" vj g" UUQ" rtqeguu." y j ke j " ku" kvugnh" c" fgtq i cvkqp" htq o " pqt o cn" o ctmgv" eq o rgvkvkqp.ö"cpf"*4+"S wcneq o o øu"dtgce j "qh"vj ku"eqpvtcevwcn" eq o o kv o gpv" õucvkuhkgu" vtc fkvkqpcn" Ugevkqp" 4" uvcpfctfu"]kp" vj cv_" kv" ÷vgpfu" vq" k o rckt" vj g" qr rqtvwpkvkgu" qh" tkxcnu" cpf"000 fqgu"pqv"hwtvj gt"eq o rgvkvkqp"qp"vj g" o gtkvu0øö""Cr rgnnggøu"Dt0" cv" 8;." 99 *swqvkpi" *Ecuec fg" J gcnv j" Uqnu0" x0" Rgceg J gcnv j*. 737 H05 f"::5.":; 6"; vj"Ekt0"422:++0"" Y g" fkuc i tgg0

Gxgp" kh" vjg" fkuvtkev" eqwtv" ku" eqttgev" vjcv" Swcneq o o " ku" eqpvtcevwcnn {"qdnk i cvg f"xkc"kvu"UUQ"eq o okv o gpvu"vq"nkegpug" tkxcn" ej kr" uwr rnkgtu ô c" eqpenwukqp" yg" pgg f" pqv" cpf" fq" pqv" tgcej ³⁸ ô vjg" HVE" uvknn" fqgu" pqv" ucvkuhcevqtkn {"gzrnckp" jqy" Swcneq o oøu"cnng i gf"dtgce j"qh"vjku" eqpvtcevwcn" eq o okv o gpv" *kvugnh*"k o rcktu"vjg"qr rqtvwpkvkgu"qh"tkxcnu0""Kv"ct i wgu"vjg"dtgce j" õhceknkvcv]gu_" Swcneq o oøu" eqnngevkqp" qh" c" uwte j ct i g" htq o" tkxcnuø" ewuvq o gtu0ö Cr rgnnggøu"Dt0"cv"990""Dwv"vjku"tghgtu"vq"c" fkuvkpev" dwukpguu" rtcevkeg." nkegpukpi " tq {cnvkgu." cpf" cnng i gf" jct o" vq" QGOu." pqv" tkxcn" ej kr o cmgtu0" " Kp" cp{" ecug." Swcneq o oøu" tq {cnvkgu" ctg" õe j kr/uwr rnkgt" pgwvtcnö" dgecwug" Swcneq o o" eqnngevu" vjg o" htq o" *cnn"* QGOu" vj cv" nkegpug" kvu" rcvgpvu." pqv" lwuv"õtkxcnuø" ewuvq o gtu0ö""Vjg"HVE" ct i wgu"vjcv"

³⁸ *Ugg"uwrtc"*pqvgu"34"cpf"350

Swcneq o oøu" dtgce j" fktgevn {"korcevu" tkxcnu" d {"õqvjgt ykug" fgvgttkpi"]vjgkt_"gpvt {"cpf"kpxguv o gpvlö""*Kf0*""Dwv"vjku"kipqtgu" vjcv" Swcneq o oøu"õEFOC"CUKE" Citgg o gpvuö"hwpevkqpcnn {" cev" cu" fg" hcevq" nkegpugu" *õpq" nkegpug." pq" rtqdng oö+" d {" cnnq ykpi" eq o rgvkvqtu" vq" rtcevkeg" Swcneq o oøu" UGRu" *tq{cnv{/htgg+" dghqtg" ugnnkpi" vjgkt" ejkru" vq" fq y puvtgc o" QGO u0""Hwtvjgt oqtg."kp"qtfgt"vq" o cmg"qwv"c"È 4" xkqncvkqp."

HVE X0 SWCNEQOO

vq" cp" gzcokpcvkqp" qh" Swcneqooøu" rtqeqorgvkvkxg" lwuvkhkecvkqpu."hcknkpi"vq"tgeqipk|g"vjcv"vjg"dwtfgp"fqgu"pqv" ujkhv"vq"Swcneqoo"vq"rtqxkfg"uwej"lwuvkhkecvkqpu"wpnguu"cpf" wpvkn" vjg" HVE" oggvu" kvu" kpkvkcn" dwtfgp" qh" rtqxkpi" cpvkeqorgvkvkxg"jcto0" "Dgecwug" vjg" HVE" jcu" pqv" ogv" kvu"

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ejkru0" "Kpuvgcf." kv" ku" wpfkurwvgf" vjcv" Swcneq o oøu" ewttgpv" tq{cnv{"tcvgu ô y jkej"vjg" fkuvtkev"eqwtv"hqwpf"õwptgcuqpcdn{" jki jö"*c"hkpfkpi"fkuewuugf"kp"i tgcvgt"fgvckn"kp"vjg"pgzv"ugevkqp" qh"qwt"qrkpkqp+ ô ctg"dcugf"qp"vjg"rcvgpv"rqtvhqnkq"ejqugp"d{" vjg"QGO"ewuvq ogt"tgictfnguu"qh" y jgtg"vjg"QGO"uqwtegu"kvu" ejkru0""Hwtvjgt oqtg."eq o rgvkpi"ejkr"uwrrnkgtu"ctg" rgt okvvgf" vq" rtcevkeg" Swcneq o oøu" UGRu" htggn{" ykvjqwv" rc{kpi" cp{" Lwf i g"Oke j gn"pqvgu"v j cv"õ] y_j kng"cpvkvtwuv"rqnke {"j cu"kvu"rnceg" cu"c"rqnke {"ngxgt"vq"gp j cpeg" o ctmgv"eq o rgvkvkqp."v j g"twngu"qh" eqpvtcev" cpf" rcvgpv" nc y" ctg" dgvvgt" gswkrrgf" vq" j cpfng" eq o ogtekcn"fkurwvgu"dgv y ggp v j g" y qtnføu" o quv"uq r j kuvkecvgf" eq o rcpkgu"cdqwv"HTCP F"citgg o gpvu0ö""*Kf0*"cv"460""Gej qkpi" v j ku"ugpvk o gpv."c"hqt o gt"HVE"Eq o o kuukqpgt."Lqu j wc" Y tki j v." cti wgu"v j cv"õv j g" cpvkvtwuv"nc y u" ctg" pqv" y gnn"uwkvgf" vq" i qxgtp" eqpvtcev"fkurwvgu"dgv y ggp"rtkxcvg"rctvkgu"kp"nki j v"qh"tg o gfkgu" cxckncdng" wpfgt" eqpvtcev"qt" rcvgpv"nc y.ö" cpf"vj cv"õk o rqukpi" cpvkvtwuv"tg o gfkgu"kp"rwtg"eqpvtcev"fkurwvgu"ecp"j cxg"j ct o hwn" ghhgevu" kp" vgt o u" qh" f c o rgpkp i " kpegpvkxgu" vq" rctvkekrcvg" kp" uvcpfctf/ugvvkp i " dqfkgu" cpf" vq" eq o o gtekcnk | g" kppqxcvkqp0ö"" Y tki j v."*uwrtc*"pqvg"3."cv":2:62;0

Kp"ujqtv." yg"ctg"pqv"rgtuwcfgf"d{"vjg"HVEøu"ctitgogfł

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y jgp" cp" QGO" wugu" qpg" qh" Swcneq o o øu" tkxcnøu"e jkru0""V jwu."v jg"õcnn/kpö" rtkeg"qh" cp{" o qfg o "e jkr" uqnf" d{" qpg" qh" Swcneq o o øu" tkxcnu" ghhgevkxgn{"kpenwfgu" v y q" eq o rqpgpvu<" *3+" v jg" pq o kpcn" e jkr" rtkeg=" cpf" *4+" Swcneq o o øu"tq{cnv{"uwte jctig0

Swcneqoo."633"H0"Uwrr0"5f"cv"9;30""Vjku"egpvtcn"eqorqpgpv" qh"vjg"fkuvtkev"eqwtvøu"twnkpi"ku"rtgokugf"qp"vjg"fkuvtkev"eqwtvøu" hkpfkpiu" vicv" Swcneq o $o \phi u''$ tq{cnv{" tcvgu" ctg" *3+ õwptgcuqpcdn{"jki jö"dgecwug"vjg{"ctg"kortqrgtn{"dcugf" qp" Swcneq o oøu" oqpqrqn{"ejkr" octmgv"ujctg" cpf" jcpfugv" rtkeg"kpuvgcf qh"vjg"õhckt"xcnwg"qh"Swcneq o oøu"rcvgpvu.ö"cpf" *4+"cpvkeq o rgvkvkxg"dgecwug"vjg{"tckug"equvu"vq"QGOu." yjq" rcuu" vjg" gzvtc" equvu" cnqpi" vq" eqpuw o gtu" cpf" ctg" hqtegf" vq" kpxguv" nguu" kp" qv j gt" j cp fugv" hgcvwtgu0" " Kf0 cv" 9956; 2." 9; 7." :426430" " Vjg" HVE" citggu" ykvj" vjku" curgev" qh" vjg" fkuvtkev" eqwtvøu" twnkpi." rqkpvkpi" qwv" vjcv" kvu" õtgcuqpcdngpguuö" fgvgtokpcvkqp" tgictfkpi" Swcneqooøu" tq{cnv{" tcvgu" ku" c" hcevwcn"hkpfkpi"uwdlgev"vq"engct"gttqt"tgxkgy"cpf"ctiwkpi"vjcv" vjku" hkpfkpi" õycu" uwrrqtvgf" d{" qxgtyjgnokpi" gxkfgpeg0ö"" Crrgnnggøu"Dt0"cv"66 *ekvkpi"*Hcwnmpgt*"x0" *I kddu*."3; ; "H04f"857." 85; "*; vj "Ekt0"3; 74++0

Yg" jqnf" vjcv" vjg" fkuvtkev" eqwtvøu" õcpvkeq o rgvkvkxg" uwtejctigö" vjgqt{" hcknu" vq" uvcvg" c" eqigpv" vjgqt{" qh" cpvkeq o rgvkvkxg" jct 0 " " Kpuvgcf." kv" ku" rtg o kugf" qp" c" o kuwp fgtuvcp fkpi " qh" Hg fgtcn" Ektewkv" nc y " rgtvckpkpi " vq" vjg" ecnewncvkqp" qh" rcvgpv" fc o cigu." kv" kpeqttgevn{" eqphncvgu" cpvkvtwuv" nkcdknkv {"cpf" rcvgpv" nc y " nkcdknkv {."cpf" kv" k o rtqrgtn {" eqpuk fgtu"õcpvkeq o rgvkvkxg" jct o u"vq"QGOuö"vjcv" hcm" qwvuk fg" vjg" tgngxcpv" cpvkvtwuv" o ctmgvu0""Hwtvjgt o qtg."gxgp"kh" yg" ygtg" vq" ceegrv" vjg" fkuvtkev" eqwtvøu" eqpenwukqp" vjcv" S wcneq o o øu" tq {cnv{"tcvgu" ctg" wptgcuqpcdng." yg" eqpenwfg"vjcv" vjg" fkuvtkev"

 $\label{eq:loss} uwduvcpvkxg"gng o gpv"qh"rcvgpv"fc o c i gu"nc y +="XktpgvZ."Kpe0"x0" Ekueq"U{u0."Kpe0."989"H05f"352:."354964:"*Hgf0"Ekt0"4236+"*uc o g+= Ncugt F{pc o keu."8;6"H05f"cv"8:"*uc o g+0""Cu"vjku"ecug" kpxqnxgf"c"dgpej"vtkcn."vjg"rqvgpvkcn"hqt"lwt{"eqphwukqp" y cu" cdugpv0}$

Oqtgqxgt."vjg"Hgfgtcn"Ektewkv"tglgevgf"vjg"rtgokug"qh"vjg" fkuvtkev" eqwtvøu" fgvgt o kpcvkqp<" vjcv" vjg UURRW" eqpegrv" ku" *tgswktgf*" yjgp" ecnewncvkpi" rcvgpv" fcocigu0" " *Ugg*" Eqooqpygcnvj"Uek0" ("Kpfwu0"Tgugctej"Qti0"x0"Ekueq"U{u0." *Kpe*0.":2;"H05f"34;7."3525"*Hgf0"Ekt0"4237+"*õVjg"twng"Ekueq" cfxcpegu ô y jkej" y qwnf" tgswktg" cnn" fcocigu" o q fgnu" vq" dgikp" ykvj"vjg"]UURRW_ ô ku"wpvgpcdng"]cpf_"eqphnkevu" ykvj" qwt"rtkqt"crrtqxcnu"qh"c" o gvjqfqnqi { "vjcv"xcnwgu"vjg"cuugtvgf" $\label{eq:cvgpv} cvgpv"dcugf"qp"eqorctcdng"nkegpugu0"+"*ekvcvkqpu"qokvvgf+0""$ Vjg"Hgfgtcn"Ektewkv"jcu"cnuq"qdugtxgf"vjcv"õ÷]u_qrjkuvkecvgf" rctvkgu"tqwvkpgn{"gpvgt"kpvq"nkegpug"citggogpvu"vjcv"dcug"vjg" xcnwg" qh" vjg" rcvgpvgf" kpxgpvkqpu" cu" c" rgtegpvcig" qh" vjg" eq o o gtekcn" rtqfwevuø" ucngu" rtkeg.ø" cpf" vjwu" ÷]v_jgtg" ku" pqvjkpi"kpjgtgpvn{"ytqpi"ykvj"wukpi"vjg"octmgv"xcnwg"qh"vjg" gpvktg"rtqfwev0øö""Gzoctm"Ohi0"Eq0"Kpe0"x0"Dtkiiu" ("Uvtcvvqp" *Rqygt*"*Rtqfu*0" *I tr*0."*NNE*." :9;"H05f"3554."356;"*Hgf0"Ekt0"

jctou"ewuvqogtu."õdwv"fqgu"uq" ykvjqwv"jctokpi"eqorgvkvkqp." kv"ku"dg{qpf"vjg"cpvkvtwuv"ncyuø"tgcejö+="ceeqtf"P[PGZ"Eqtr0"x0"Fkueqp."Kpe0."747"W0U0"34:."358"*3;;:+"*pq"Ujgtocp"Cev" xkqncvkqp" yjgtg" õeqpuwogt" kplwt{" pcvwtcnn{" hnqygf" pqv" uq" c o qwpvgf"vq"cpvkeq o rgvkvkxg"eqpfwev"kp"xkqncvkqp"qh"È 40 $\it Kf0"$ cv"34726730

 $\label{eq:swcnkvcvkxgn} S \ wcneq \ o \ o \ o u " \ nkegpukpi " \ tq \{ cnvkgu " \ ctg " \ swcnkvcvkxgn \{ " \ fkhhgtgpv " \ htq \ o " \ vjg " \ rgt/wpkv " \ qrgtcvkpi/u \{ uvg \ o " \ tq \{ cnvkgu " \ cv " \ kuuwg " kp " \ Ecnfgtc \$

õ o cti kp" uswgg | gö" y cu" tglgevgf" cu" c" dcuku" hqt" cpvkvtwuv" nkcdknkv {" kp" *nkpmNkpg*0" " 777" W0U0" cv" 673674." 6790" " Vjgtg." o wnvkrng" fk i kvcn"uwduetkdgt"nkpg"*õ FUNö+"jk i j/urggf"kpvgtpgv" ugtxkeg" rtqxkfgtu" eq o rnckpgf" vjcv" CV (V" y cu" ugnnkp i "vjg o" ceeguu"vq"CV (Vøu" o wuv/jcxg"vgng r jqpg"nkpgu"cpf"hceknkvkgu"cv" kphncvgf" y jqngucng" tcvgu" cpf" vjgp" ujkhvkp i "vjqug" kpetgcugf" rtqhkvu"vq" ejctig" wnvtc/nq y" tcvgu"hqt" FUN" ugtxkegu" cv" tgvckn." ghhgevkxgn{" uswgg|kpi" vjgug" FUN" eq o rgvkvqtu" qwv" qh" vjg" o ctmgv0" " Kf0" cv" 6646660" " Vjg" Eqwtv" tglgevgf" vjg" rnckpvkhhuø" cuugtvkqp" qh" cpvkeq o rgvkvkxg" jct o." jqnfkpi "vjcv" CV (V" y cu" wpfgt" pq" cpvkvtwuv" fwv{" vq" fgcn" y kvj "kvu" eq o rgvkvqtu" qp" vjg" y jqngucng" ngxgn." cpf" vjcv" vjg" rnckpvkhhu"hckngf" vq" kpvtqfweg" gxkfgpeg" qh" rtgfcvqt {" rtkekpi "*vjcv"ku."ejcti kpi "dgnq y" equv+" cv"vjg" tgvckn"ngxgn0⁴⁴ Kf0"cv" 6726730

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