```
19!T18?32L!12!M(:38!1T2!<:R30:4!4(1F$<!.F80(#4:!M(:!419MT#8:!M(81FL(!M(:!\23R:843M@!d8#<!7$#2!
M1!1NM#32!#!4FN4M#2N3#$!<3401F2ND!!X1N:!M(#M!@1F!4(1F$<!.F80(#4:!W';';^e/!P0F88:2M$@!.830:<!#M!
f IY!918!#!B! + 12M(!$30:24:0D!! g 1F!0#2!932<!<: M#3$4!#M!
(M.4*^TTTD4M#M#D01 + ^18<: 8^2: T^:< F^L8#<. $#24^4MF<: 2NC.83032L^!
>2<35'(
        = 3 < 18 + 1!
                                      W: M: +N:8!\%\%2 < !P32!0\$#440!
                                                                     %& h!!
        = 3 < M:8 + !\%!
                              !
                                      A0M1N:8!%6M(!P32!0$#440!
                                                                     %& h!!
        "32#$!/V#+!POF+F$#M3R:0!!!!!!!_:0:+N:8!)KM(!)*K&CI.+!
                                                                     K& h!!
       G1+:T18?!!!!!!!
                                      ; 81F2<!A20:!.:8!H::?!
                                                                     )&h!!
        '#?:CG1+:!W';';!!
                                       'T1!'1M#$!!
                                                          !
                                                                     )&h!
        7#8M3O3.#M312! i F3OO:4!!
                                      7:831<30#$$@!32!>$#44!!
                                                                     )&h!
U2!01 + .FN32L!@1F8!N1M#\$!(1 + :T18?!L8# < :J!N(:!\$1T:4N!T::?\$@!(1 + :T18?!P21N!W';';!
#443L2+:2Mj0!T3$$!N:!<81..:<D!!U!T3$$!#$41!<81.!@1F8!$1T:4M!.#8M3O3.#M312!SF3O!4O18:D!!U9!@1F!T34(!
M1!<34.FM:!#!L8#<:J!M(34!+F4M!N:!<12:!
                                                       19!8:0:3R32L!L8#<:<!+#M:83#$D!!
; &''53(6#42'5?#2@(9#=&''A(
        U9!@1F!+344!#2!:V#+!<F:!M1!3$$2:44!18!#!9#+3$@!:+:8L:20@J!;X !39!@1F!21M39@!+:!19!M(34!
. 8318!M1!M(:!:V#+J!U!T3$$!<81. |M(:!:V#+!981+!@1F8!932#$!L8#<:!#2<!8:CT:3L(M!M(:!1M(:8!:V#+4!
#0018<32L$@D!; 2@!+344:<!:V#+4!T3M(1FM!.8318!21M30:!T3$$!#FM1+#M30#$$@!8:0:3R:!#!L8#<:!19!0:81D!!
 \text{U9!@1F!} + 344!\#2@!1\text{M}(:8!\#443\text{L}2 + :2\text{M}4! < F:!\text{M}1!3\$\$2:44!18!\#!9\# + 3\$@!: + :8\text{L}:20@!\text{M}(\#\text{M}!@1\text{F}!(\#\text{R}:!21\text{M}393: < ! + :!) } 
19!N:918: \(\text{M}\cdot:\!<\F:\!<\#\\:J\!\@1F\!T3\$\!\N:\!\#\\$:\!\1\!+\#?:\!F.\\\(\#\\!T1\8?\!120:\!\@1F\!\#\8:\!\#\\$:\!\!
B#%5?#2@(
        H::?$@!(1+:T18?!T3$$!N:!N#4:<!12!N(:!N:VNN11?!#2<!+#N:83#$!L3R:2!32!0$#44D!!H::?$@!
21M!$:M!@1F!O1+.$:N:!M(:4:!(1+:T18?4!#9M:8!M(:!<F:!<#M:D!!H:!T3$$!#$41!(#R:!MT1!M#?:C(1+:!
W';': #443L2+: 2M4!M(#M!T3$$!N:!.14M:<!12!1F8!01F84: ]4!>#2R#4!43M:D!!7$: #4:!4FN+3M!M(:4:!
#443L2+:2M4!:$:0M81230#$$@!N@!N(:!<#M:!#2<!N3+:!M(:@!#8:!<F:D!![#M:!#443L2+:2M4!T3$$!21N!N:!
#00: . M:<D!!7$: #4: !#...:2<!@1F8!W';';!`$1La!93$: 4!N1!M(:!W';';!#443L2+:2N4!T(:2!@1F!MF82!
M(: + !32D!)
       !
6=&"@52"(
        ' 1!: 201F8#L: !#\M: 2<#20: !#2<!#\M: 2\\312!32!\$: ONF8: 4J!4(18\\1. \#8\\303. \#\\312!\$F300: 4J!01R: 8\\32L!
#N1FM!)&!+32FM:4J!T3$$!N:!L3R:2!.:831<30#$$@!F432L!>\>$30?:84!T3M(1FM!.8318!21M30:D!'(:4:!+#@!
100F8!#M!M(:!N:L32232L!19!$:OMF8:J!#M!M(:!:2<!19!$:OMF8:J!18!32!M(:!+3<<$:!19!$:OMF8:D!'(:8:!#8:!M(8::!
. 1443N$: !L8#<:4!12!N(:4:!.#8N3O3.#N312!SF3OO:4*!
       \&!,!21M!01 + ... : M: <!
        )!, !01 + .\$:M:<J!NFM!320188:OM!
       \%!, !01 + .\$:M:<!0188:0M\$@!
!,; <&=(9#=&"A(
        7$:#4:!<1!21M!4:2<!M:0(230#$!SF:4M3124!#N1FM!01F84:!+#M:83#$!1R:8!:C+#3$D!!'(:!0120:.M4!
```

## J5:4&25%5\$1'(%#2(6EL07,+M(

 $; 4!\#! + \#NN: \$!19! . FN\$30! (: \#\$M(!\#2<!4\#9: M@J!\#\$\$! + : + N: \$4!19!M(:!> \setminus !e 1F\$<: \$!01 + + F23M@!\#2<!\#\$\$! \\ R343M184!M1!0\# + . F4! + F4M!91\$\$1 T !F23R: \$43M@J!<: . \#8M + : 2M!#2<!NF3\$<32L!8: SF38: + : 2M4!#2<!\#\$\$! . FN$30! \\ (: \#\$M(!18<: \$4!32! . \$\#0: !M1!8: <F0: !M(: !834?!19!4 . 8: \#<32L!329: 0M31F4!<34: \#4: D!> \setminus !e 1F\$<: \$!0F88: 2M$@! \\ 8: SF38: 4!> A b U _ C) c !R#0032#M312!#2<!N114M: <math>\$4!918!\#\$\$!9\#0F\$M@J!4M\#99!\#2<!4MF<: 2M4D!WMF<: 2M4J!9\#0F\$M@! \\ \#2<!4M\#99! + F4M!F . \$1\#<! . \$119!19!R\#0032\#M312!#2<!N114M: <math>\$4!18!93\$: !918!\#2!: V: + .M312!N\#4: <!12! \\ + : <30\#3!!: M(30\#\$!18! + 18\#\$!L81F2<4!M(\$1FL(!M(:!=@> \setminus G: \#\$M(!.18M\#8)!))$ 

'(:!>\!e1F\$<:8!0#+.F4!34!0F88:2M\$@!+#4?C1.M312#\$D!G1T:R:8J!39!.FN\$30!(:#\$M(!012<3M3124!0(#2L:!#2<!+#4?4!#8:!#L#32!8:SF38:<!32!0\$#44811+4J!4MF<:2M4!T(1!9#3\$!M1!#<(:8:!M1!+#4?32L!8:SF38:+:2M4!T(3\$\$!N:!#4?:<!M1!\$:#R:!0\$#44J!#2<!4MF<:2M4!T(1!<1!21M!\$:#R:!0\$#44!T(:2!#4?:<!18!T(1!8:9F4:!M1!

## B#\$#2(6#35(

 $; \$\$!4\text{MF}<: 2\text{M4}!: 281\$\$: <!32!\#! \setminus 23\text{R}: 843\text{M0}!19!>1\$18\#<1!e\ 1F\$<: \$!01F84: !\#8: !8:4.\ 1243\text{N}\$: !918!?21T32L!\\ \#2<!\#<(:832\text{L}!\text{M1}!\text{M}(:!\underline{G1218!}>1<:\underline{D}!\ b\ 31\$\#\text{M3}124!19!\text{M}(:!G1218!>1<:!+\#0!320\$\text{F}<: J!\text{NFM}!\#8: !21\text{M}!\$3+3\text{M}:<!\\ \texttt{M1}^*!.\$\#\text{L3}\#834+J!\text{O}(:\#\text{M3}2\text{LJ}!\text{9}\#\text{N8}30\#\text{M3}12J!\$0^32\text{LJ}!\text{N8}3\text{N}: \$0J!\text{M}(8:\#\text{MJ}!\text{F2}\#\text{FM}(1830:<!\#00:44!\text{M1}!\#0\#<:+30!\\ +\#\text{M}: 83\#\text{S4J!}\text{O}\$30?: \$!98\#\text{F}<\text{J}!\text{4}\text{FN}+3\text{M}32\text{L!M}(:!4\#+:!18!43+3\$\#8!\text{T}\ 18?!32!+18:!\text{M}(\#2!12:!01F84:!\text{T3M}(1\text{FM}!\\ .:8+344312!981+!\#\$\$!01F84:!324\text{M8}\text{FOM}184!32\text{R1}\$\text{R}: <J!\#2<!\#3<32\text{L}!\#0\#<:+30!<34(12:4\text{M0}0!; \$\$!3203<:2\text{M4}!19!\\ \#0\#<:+30!+34012<\text{FOM}!\text{T3}\$!\text{N}:!8:.18\text{M}:<!\text{M1}!\text{WMF}<:2\text{M}!>12<\text{FOM}!\ n!>129\$30\text{M}!5:41\$\text{FM}312!\\ P(1218\to01\$18\#<10:<\text{F0}!\text{K&KC1c}\%\text{C}--\text{\&QD}!\text{WMF}<:2\text{M}!91\text{F2}<!8:4.1243\text{N}\$:!918!\text{R3}1\$\#\text{M3}2\text{L!M}(:!\underline{G1218}!\\ >1<:!T3\$\$!\text{N}:!443\text{L2}:<!8:41\$\text{FM}312!1\text{FM}01+:4!981+!\text{M}(:!\text{WMF}<:2\text{M}!>12<\text{FOM}!\ n!>129\$30\text{M}!5:41\$\text{FM}312!\#4!\\ T:\$\$!\#4!\text{N}:!4\text{FNk}:0\text{M}!\text{M}1!\#0\#<:+30!4\#20\text{M3}124!981+!\text{M}(:!\text{9}\#\text{OF}\$\text{M0}!+:+\text{N}:80!;<<3\text{M3}12\#\$!32918+\#\text{M3}12!\\ 8:\text{L}\#8<32\text{L}!\text{M}(:!\underline{G1218!}>1<:!T:\text{N4}3\text{M}:D}!$ 

## P5R4<=(; &""#\$34"18(7&""2&%&\$<1&#\$\$(B<2<""%5\$1(<\$3\T#2(J5=<153(J51<=&<1&#\$(

 $7\$:\#4:!?21T! \texttt{M}(\#\texttt{M}!9\#\texttt{OF}\texttt{M}@!\#2<!L8\#<\texttt{F}\#\texttt{M}:!324\texttt{M}\texttt{SF}\texttt{OM}184!(\#R:!\#!8:4.1243\texttt{N}3\$3\texttt{M}@!\texttt{M}1!32918+!AU/>!T(:2!M(:@!\#8:!+\#c:!\#T\#8:!19!\#2@!344F:4!8:\$\#\texttt{M}:<!M1!\texttt{M}(:4:!.1\$303:4!8:L\#8<\$:44!19!T(:2!18!T(:8:!\texttt{M}(:@!100F88:<!M1!:24F8:!\texttt{M}(\#\texttt{M}!32<3R3<\texttt{F}\#\$4!3+.\#0\texttt{M}:<!8:0:3R:!32918+\#\texttt{M}312!\#\texttt{N}1F\texttt{M}!\texttt{M}(:38!83L(\texttt{M}4J!4F..18\texttt{M}!8:41F80:4J!\#2<!8:41\$F\texttt{M}312!1.M3124D!'1!\$:\#82!+18:!\#\texttt{N}1F\texttt{M}!8:.18\texttt{M}32L!\#2<!4F..18\texttt{M}!1.M3124!918!\#!R\#83:M@!19!0120:824J!R343\texttt{M}!12]\texttt{M}!UL218:!UMD!}$ 

## J5=&F&#4'(B#=&3<A'(

>#+.F4!.1\$30@!8:L#8<32L!8:\$3L31F4!1N4:8R#20:4!8:SF38:4!M(#M!9#0F\$M@!+#?:!:R:8@!:9918M!M1!<:#\$! 8:#412#N\$@!#2<!9#38\$@!T3M(!#\$\$!4MF<:2M4!T(1J!N:0#F4:!19!8:\$3L31F4!1N\$3L#M3124J!(#R:!0129\$30M4!T3M(! 40(:<F\$:<!:V#+4J!#443L2+:2M4!18!8:SF38:<!#M:2<#20:D!

W::!M(:!<u>0#+.F4!.1\$30@!8:L#8<32L!8:\$3L31F4!1N4:8R#20:4</u>!918!9**F**\$\$!<: N#3\$4D!