$\label{eq:N>1!.} 991(!,9!D>,^*>!D1!<(1<)(1!12-^*)+,89)5!<1(089915!,0!,948(. 12!7=!1,:>+!10019+,)5!)++(,7-+100!)$ 

- PB 190-(,9:!+>)+!<(8:(). 0!)(1!E98D512:167)0120!
- \$B \*89+1;+-)5!)92!\*-5+-()5!0190,+,A,+=0!
- SB 4)\*,5,+)+,9:!,9?-,(=!)92!(1451\*+,893!,B13!<(8A,2,9:!0+(-\*+-(

 $\label{eq:solution} \begin{array}{l} \#) 92,2) + 10! < (1 <) (12!,9!1) (5=!^{*} >,52 > 882!21: (11! < (8: (). 0! - 921(0+) 92!+>) +!^{*} >,52!8701(A) +,893! \\ 28^{*} - . 19+) +,893!) 92!8 +> 1(!48(. 0!84!) 00100. 19+!) (1!^{*}19+()5!+8!+>1!<()^{*} +,^{*}1!84!) 55!1) (5=!^{*} >,52 > 882! \\ < (84100,89) 508!N > 1 = !E98D!) 78 - +!) 92! - 921(0+) 92!+>1!: 8) 503!71914, +03!) 92! - 010!84!) 00100. 19+B!N > 1 =! \\ E98D!) 78 - +!) 92! - 01!0 = 0+1. ) +,^{*}!8701(A) +,8903!28^{*} - . 19+) +,893!) 92!8 +> 1(!1441^{*} +,A1!) 00100. 19+! \\ 0+()+1:,10!,9!)!(10<890,751!D) = 3!,9!<) (+91(0>,<!D,+>!4). ,5,10!) 92!8 +> 1(!<(84100,89) 503!+8!<80,+,A15=! ,945 - 19^{*}1!+>1!21A158 <. 19+!84!1A1(=!^{*} >,52B! \\ \end{array}$ 

• N>1!\*)92,2)+1!>)0!8<<8(+-9,+,10!+8!8701(A1!)92!<()\*+,\*1!,9!)+!51)0+!+D8!84!+>1! +>(11!.),9!+=<10!84!1)(5=!12-\*)+,89!01++,9:0!L1)(5=!0\*>885!:()2103!\*>,52\*)(1! \*19+1(0!)92!>8. 103!Z1)2!H+)(+!<(8:(). 0M! !

J00,: 9. 19+0!<(8A,21!0+-219+0!D,+>!+>1!

 $\begin{aligned} & 8 << 8(+-9,+=!+8!) << 5=!*89+19+!D>, 51!, 9+1()*+, 9:!D,+>!*5)00. +10!8(!)9)5= \, 9:!\\ & 8701(A)+, 890!84!, 90+(-*+, 89!)92!0+-219+!51)(9,9:!8-+*8. 108!!H+-219+0!)(1!1;<1*+12!+8!)\\ & (141(19*1!*8-(01!...)+1(,)50!D>, 51!19:):, 9:!, 9!)!+>8-:>+4-5!2, 0*-00, 89!D,+>!*5)00. +10!89!\\ & +>1!+8<, *0!<(8A,2128!)\end{aligned}$ 

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H+-219+0!D,55!<5)93!21A158<3!)92!19)\*+!+>(11!510089!<5)908!

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H+-219+0!D,55!\*8. <51+1!)!<8(+485,8!+>(8-:>8-+!+>1!

\*8-(018

!!

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 $\begin{aligned} &H+-219+0!D,5!71!1A)5-)+12!2-(,9:!'()^{*}+,^{*}-.!/!7)012!89!19:):1. 19+!,9!+>1!895,91!^{*}8-(01!)92!1A)5-)+,89!84!<1(48(.)9^{*}1!,9!+>1!4,152!<5)^{*}1. 19+8!''A)5-)+,89!84!<1(48(.)9^{*}1!,9!+>1!4,152!<5)^{*}1. 19+8!''A)5-)+,89!84!<1(48(.)9^{*}1!,9!+>1!4,152!<5)^{*}1. 19+8!''A)5-)+,89!84!<1(48(.)9^{*}1!,9!+>1!+>1!4,152!<5)^{*}1. 19+8!''A)5-)+,89!84!<1(48(.)9^{*}1!,9!+>1!+>1!+>1!4,152!0,5!^{*}1004-5!^$ 

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 $\begin{aligned} & \text{SB}!! \qquad \text{N} > 1 \ \underline{!} \ \underline{!} \ \underline{''} \ \underline{!}^{!} \ \underline{!}  

H+)(0!,0!+8!,9A10+!,9!<)(+,\*,<)+,9:!<(8:().0!+8!,9\*(1)01!)\*\*100!+8!>,:>!?-)5,+=!\*)(1! 48(!)55!84!]15)D)(1T0!\*>,52(193!10<1\*,)55=!+>801!4(8. !58D6,9\*8. 1!4). ,5,108! UB!! I J''K#!'') (5=!d1) (9,9:!' (8:(). !J\*\*(12,+)+,89!H+)92) (20!e!J00100. 19+! /+1. 0!!),. !+8!190-(1!+>1!?-)5,+=!84!\*>,52(190!2),5=!1;<1(,19\*10!,9!1)(5=!51)(9,9:!) <(8: (), 0!)92!+8!<(8, 8+1!<80,+,A1!\*>,52!8-+\*8, 108!] J"K#!")(5=!d1)(9,9:!  $(8: (). !J^{**}(12,+)+,89!>15<0!^{*}(1)+1!)!-9,4=,9:!4(). 1D8(E!84!?-)5,+=!+>)+!,0!$ )5,: 912!D,+>!+>1!<(84100,89T0!\*8551\*+,A1!E98D512: 1!84!710+!<()\*+,\*108! ] 15) \*) (1!`1:-5)+,890!48(!'') (5=!\*) (1!) 92!''2-\*)+,89!) 92!H\*>88‰J:12! @B!! #19+1(0!<(8+1\*+!)92!0-<<8(+!+>1!>1)5+>3!0)41+=3!D15571,9:3!)92!<80,+,A1! 21A158<. 19+!84!\*>,52(19!D>8!(1\*1,A1!\*)(1!,9!1)(5=!\*)(1!)92!12-\*)+,89!)92!  $0^{*} > 8856$ ):  $1!^{*}19+1(08!N > 101!(1:-5)+,890!10+)75,0>!.,9,.-.!0+)92)(20!+>)+!5,*19012!$ \*19+1(0!)(1!(1?-,(12!+8!48558D8!d,\*19012!\*19+1(0!.)=!1;\*112!+>1!(1:-5)+,890!01+! 7=!+>1!f44,\*1!84!#>,52!#)(1!d,\*190,9:!Lf##dM7=!X8,9,9:!]15)D)(1!H+)(0!48(!'')(5=! H-\*\*100!8(!7=!+>1!5,\*19011T0!8D9!1448(+08! VB!! "9A,(89. 19+)5!`)+,9:!H\*)51!!,0!)!4). ,5=!84!<(82-\*+0!+>)+!)(1!210,:912!+8! )00100!\*19+1(67)012!!\*>,52!\*)(1!<(8: (). 0!48(!A)(,8-0!):1!:(8-<0!,9\*5-2,9:!,94)9+0! )92!+82251(08!!N>1!/94)9+[N82251(!`)+,9:!"9A,(89. 19+)5!`)+,9:!H\*)51!,0!+>1!0\*)51!!

)<<(8<(,)+1!48(!-01!,9!+>,0!<()\*+,\*-. !<5)\*1. 19+B! WB!! <u>] 15) D) (1!'') (5=!d1) (9,9:!C8-92)+,8900</u>!!/94) 9+!) 92!N82251(!<(8A,210!)! 7(8) 2!<,\*+-(1!84!D>)+!>)<<190!+8!\*>,52(19!) 0!+>1=!: 8!4(8. !,94) 9\*=!+8!+82251(6 >882B!#>,52(19!21A158<!) 0!) !(10-5+!84!+>1!. )9=!+>,9: 0!+>)+!>)<<19!D>,51!+>1=!) (1! ,9A85A12!D,+>!+>1!) 2-5+0!D>8!\*) (1!48(!+>1. B!N>1!'') (5=!d1) (9,9:!C8-92)+,890! 28\*-. 19+!,0!,9+19212!+8!01(A1!) 0!) !D)=!48(!) 2-5+0!+8!190-(1!+>)+!+>1=!) (1!. )E,9:! )A),5) 751!) <<(8<(,)+1!) 92!911212!)\*+,A,+,10!+8!0-<<8(+!\*>,52(19I0!: (8D+>!)92! 21A158<. 19+B!!N>1!28\*-. 19+!,0!,9+19212!+8!71!-012!) 0!)!7(8) 2!,90+(-\*+,89)5! : -,21!48(!<5) 99,9:!1: <1(,19\*10B!

%8!! G921(0+)92,9: !d1) (9,9: !` 108-(\*10!

6!!!!!!!!!	g5-1<(,9+!48(!' 1(089)5,\12!d1)(9,9:!,9!]15)D)(1!
6!!!!!!!!!	<u>g588. T0!N);898. =</u> !
6!!!!!!!!!	#5)00(88. !a)9):1. 19+!
6!!!!!!!!!	^(8- D8(E0!G0,9:!*88<1()+,A1!51)(9,9:!:(8-<0!1441*+,A15=!</th
6!!!!!!!!!	/9*(1)0,9:!/9*5-0,A,+=!,9!+>1!#5)00(88!
6!!!!!!!!!	<u>Z8D!' 18&lt;51!d1)(9</u> !
6!!!!!!!!!	a1+)*8:9,+,89!
6!!!!!!!!!	a,924-59100!,9!+>1!#5)00(88!
6!!!!!!!!!	<u>a 8+,A)+,9: !H+-219+0</u> !
6!!!!!!!!!	<u>' 1(089)5,\12!d1)(9,9: !</u>
6!!!!!!!!!	H-70+,+-+,89!J-:. 19+)+,89!a82,4,*)+,89!`1214,9,+,89!a8215!
6!!!!!!!!!	N1*>9858: ,*)5!' 12):8: ,*)5!J92!#89+19+!h98D512:1!
6!!!!!!!!!	N1)*>1(!N88578;!
6!!!!!!!!!	i ,0-)5!d1)(9,9:!
#\$!!%&&'(')*+,!/)0-1./!+!.23.&&.&!'*!45,6!2)&0,./\$!	

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