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#+, *2//&

 $\label{eq:scale_start} \begin{array}{l} & \label{eq:scale_start} & \label{scale_start} & \label{scalex_start} & \$

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*. @5)5. $32_{0k} 43k 3G2k /. > 2k 3$ > 2Jk > . @0k *. @5)5. 32/k *, DN5& I 2k /D **2//ADN& 2K2@k L)3G, D3k 3G2k 52A2++. NM (, +2, K2+Jk , K2+k 3G2k N, @C2+k 32+>k . & 52A2++. NK *. @k . AA2*3k *. +22+k ?+, C+2//), @Jk /. N. +0Jk . @5k ?2@/), @0k %G2+2A, +2Jk I 2A, +2k52*)5)@Ck3, &52A2+Jk *. @5)5. 32/k/G, DN5&G. K2&3G2k*G. @*2k3, &5)/*D//&3G2k >. 332+kL)3Gk 3G2)+&GC.)+&3, &2E?N, +2&LG23G2+&3G2&52A2++. NM/&@2*2//. +0&. @5&3, &D@52+/3. @5&3/k*, @/2SD2@*2/0&%G2&.)>&)/A, +&G2k*. @5)5. 32&, &>. 02&. &ADNOQ@A, +>25&52*)/), @0%G2+2&/&@, &, I NOC. 3), @k, @&G2&*. @5)5. 32&, &5)/*D//& ?2+/, @. Ns >. 332+/&@k523.)NAC G)N2&G2&52*//), @&, &52A2+k+2. ??,)@3 > 2@3k, +&32@D+2&>. 0&I 2&5)/*D//25&. @5&

4##"R98i &; &

 $\label{eq:G24A, N, L)@C0/& &@, @:2EG. D/3)K2&)/3&, A&A. *3, +/&2@C2@52+25&| Q&6$789:; <&G. 3&>)CG3&G. K2& AA2*325& &*, N2. CD2_/& L, +OJ& LG)*G&>. Q&I 2&*)325&)@&3G2/2&, @2:?. C2&/DI>)//), @/Q&%G2&/DI>)//), @&/G, DN5&+2A2+&3, &3G2&)@5)K)5D. N& /)3D. 3), @&, A&3G2&/3. AA&>2>I2+V&$

- Å
- $0 = \frac{1}{25} = \frac{1}{$
- 10 +2/3+)*325&. **2//&3, &+2/2. +*G&A. *)N3)2/J&/)32/J&, +&, 3G2+&+2/, D+*2/&
- *0 /N, L25&)@A+. /3+D*3D+2&52K2N, ?>2@3&@2*2//. +Q&3, &*, @5D*3&+2/2. +*G&W)@*ND5)@C&)@/3. N. 3), @J& +2?.)+/J&. @5&*, >>)//), @)@C&, A&2SD)?>2@3Y&
- 50 52N. Q25k?+, *D+2>2@3X. *SD)/)3), @k, Ak>. 32+). N/Jk2SD)?>2@3Jk/?2*)>2@/k
- 20 +25D*25&.1)N3Q&3, &*, @5D*3&*, N.1, +.3)K2&L, +0&5D2&3, &. **2//&+2/3+)*3), @/&3, & (*M)N&A.*)N3)2/J& ?.+3@2+&A.*)N3)2/J&A)2N5&N, *.3), @/J&23*0&
- A0)>?. *3&, A&+. K2N&+2/3+)*3), @/&, @&?2+A, +>. @*2&, A&5D3)2/&020J&3, &, 3G2+&1, *.3), @J&, +&1. *0&3, &(*M)NW&
- C0 52?.+3D+2/&, A&C+. 5D. 32&/3D52@3/&)@&NCG3&, A&6\$789:; <&
- G0 A2L2+&, ??, +3D@)3)2/&A, +&+2/2.+*G&52K2N, ?>2@3J&*, N. I, +. 3), @J&.@5X, +&5)//2>)@. 3), @&W20CUJ& *.@*2W25&*, @A2+2@*2/&, +&+2/2.+*G&L, +0/G, ?/`&N. *0&, A&K2@D2/&3, &?+2/2@3&+2/2.+*G`&52N. Q25& ?DIN*.3), @/Y&
-)0)>?. *3&, A&+2>, 32&32. *G)@C&W>, +2&3)>2:)@32@/)K2&3, &?+2?. +2J&?, 32@3). N& 2AA2*3&, @&/3D52@3& 2K. ND. 3), @&/*, +2/Y&
- a) @. I)M3Q& 3, & *. ++Q& , D3& D/D. N& +2/2. +*GJ& 20C0J& A. *2:3, :A. *2& L, +O& L)3G& GD>. @& ?. +3)*)?. @3/J& 2@C. C2>2@3&)@&?DIN*&?2+A, +>. @*2/&
- 00 ?2+/, @. N&G2. N3G&*, @5)3), @/&3G. 3&>)CG3&G. K2&+2SD)+25&/?2*). N&?+2*. D3), @/J&+25D*)@C&. I)N3Q&3, & *. ++Q&, D3&. *. 52>)*&L, +O&
- N0 G2.NBG8)>?.*3/&g8)@*ND5)@C&>2@3.N&G2.NBG8)>?.*3/&g&, A&6\$789:;<&
- >0 2E?. @525& 5D3)2/& 3G. 3& >. 0& G. K2& I 22@& +2SD)+25& 5D+)@C& 3G2& ?. @52>)*& ?2+), 5& W20CU& @2L& N2. 52+/G)?&+, N2/J&2E*2?3), @. N&32. *G)@C&5D3)2/J&. 5525&C+. 5D. 32&. @5&D@52+C+. 5D. 32&> 2@3, +/G)?& +2/?, @/)I)N3)2/J&/D??, +3&C)K2@&, &, 3G2+&*, N2. CD2/&, &. //)/3&L)3G&G2&>, K2&, &+2>, 32&32. *G)@CYJ& >)@5ADW, A&3G2&?, 32@3). NO&5)/?+, ?, +3), @. 32&)>?. *3/&, @&. *. 52>)*&/3. AA&LG, &. +2&>2>I 2+/&, A& D@52++2?+2/2@325&. @5&2SD)30:/220)@C&C+, D?/&
- @0 +25D*25&5D3)2/&3G. 3&> . 0&G. K2&1 22@&. ++. @C25&L)3G&. &92?. +3 > 2@3&5D+)@C&3G2&?. @52 >)*&?2+), 5& W20CU&/, >2&92?. +3 > 2@3/&G. K2&52*)525&. /&. &D@)3&3, &N >)3&3G2&/2+K)*2&+2/?, @/)1)N3)2/&, A&?+2: 32@D+2&*, NV2. CD2/&5D+)@C&3G)/&?2+), 5&
- , 0 @2L&, +&)@*+2./25&A, +>/&, A&L, +0&3.02@&D?&, @&.**, D@3&, A&?.@52>)*&*, @5)3), @/J&?.+3)*DN.+NQ&3, & /D??, +3&*, NI2.CD2/J&/3D52@3/&, +&3G2&D@)3X1.*DNBQX^@)K2+/)3Q&./&.&LG, N2O&

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 $\begin{array}{l} 455)3), @. \ \texttt{NOJ}\texttt{k}\underline{+2.\ ??,\ }\texttt{@3} \geq \texttt{@3\&.\ @5\texttt{&32@D+2\texttt{&}^*,\ } >)\texttt{3322}}\texttt{\&} \geq \texttt{2} + \texttt{/\&^*G.\ +C25\texttt{\&L})\texttt{3G\&.\ }//2//\texttt{)}\texttt{@C\texttt{&3G2\texttt{&}+2.\ ??,\ }}\texttt{@3} \geq \texttt{@3\&.\ @5\texttt{\&32@D+2\texttt{&}5,\ }//\texttt{)}\texttt{2} + \texttt{\&4}} \\ \texttt{32@D+2\texttt{&}5,\ }//\texttt{)}\texttt{2} + \texttt{\&4}, \texttt{\&4\texttt{&32@D+2:3+.\ }}\texttt{`0\texttt{&}^*,\ }\texttt{N2.\ CD2/\texttt{\&} > D/\texttt{3\texttt{&}},\ }\texttt{N,\ } \texttt{L}\texttt{\&3G2\texttt{&}A,\ }\texttt{N,\ }\texttt{L}\texttt{)}\texttt{@C\texttt{&}?+\texttt{)}}\texttt{@*}\texttt{)}\texttt{?N2/V} \\ \end{array}$

- 4&*, N2. CD2_/&52*)/), @&3, &2N2*3J&, +&@, 3&3, &2N2*3J&3, &52A2+&32@D+2&*, @/)52+.3), @&, @&, **, D@3&, A&6\$789:; <&)/&@2D3+. N&3, &3G2&.//2//>2@3&, A&.*.52>)*&?2+A, +>. @*2N&G2&+2.??,)@3>2@3&, +&32@D+2&5, //)2+&>D/3&I 2& *, @/)52+25&, @&3/&, L@&2+>/&.@5&2)*&?2+A, +>. @*2N&G2&+2.??,)@3>2@3&, +&32@D+2&5, //)2+&>D/3&I 2& *, @/)52+25&, @&3/&, L@&2+>/&.@5&2.??,)@3>2@3&.@5&2@D+2&*, >>)3322/&/G, DN5&@, 3&*, @/)52+&, +&5)/*D//& 3G2)+&K)2L&, A&3G2&*.@5)5.32_/&aD5)*), D/@2//&)@&2N2*3)@C&g&, +&@, 3&g&3, &52A2+&+2.??,)@3>2@3&, +&32@D+2& *, @/)52+.3), @V&
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 - %G2&*+)32+). &A, +&+2. ??,)@3>2@3&. @5&32@D+2&. 3& (*M)N&g&52A)@25&I Q&3G2&

*, N2.CD2/&LG, /2&L, +0&L./&.5K2+/2NQ&.AA2*325&1Q&6\$789:; <&)@&.&/)C@)A)*.@3&L.QJ&.//2//>2@3&/G,DN5&*2@3+2&,@&3G2&SD2/3),@V&CG.3&