

# ! "#\$\%&\\ ()\\*+, -.\\$\/0\\*1\%2\\-\\*(\\\-\\$\\\3\\\*

)#\$4.-5\*6%-4\*7%88%''-43\*



### Leslie Haddon

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+!", -./, !&01123!4"565&011237.-, 50859:

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 S, 8, 3=!J, 0B-!E0<,!-,, 3!=E,!1B0D0=/8!/38B, 0-,!/3!=E,!1/>/=0.!, 3>0>, D, 3=!2?!2.1, B!A, 2A., !@E2! E01!AB, </29-.J!N, ,3!A2B=B0J, 1!0-!N, /3>!23!=E,!@B23>!-/1,!2?!=E,!1/>/=0.!1/</1,5!KE/-!A0A, B!, W0D/3, -!=E,!<0B/29-!=JA, -!2?!, WA.030=/23!2?!@EJ!=E/-!/-!E0AA, 3/3>!!/38.91/3>!=E,!>, 3, B0.! 8E03>, -!/3!=E,!, WA, B/, 38,!2?!N, /3>!2.1, B!B0A=9B, 1!/3!=E,!^-98B, --?9.!0>, /3>\_!30BB0=/<,!! >, 3, B0=/230.!8.0/D-!0N29=!=E,!<0.9, -!^ONJN22D, B-!NB/3>!=2!2.1, B!0>,!031!./?,!829B-,! 030.J-/-5!^9=!E2@!12!03J!-98E!NB201, B!8E03>, -!=B03-.0=,!/3=2!3,@!1/>/=0.!AB08=/8, -a!' 32=E, B! =JA,!2?!, WA.030=/23!D0J!./,!/3!8E03>, -!/3!=E/-!82E2B=\_-!A

F, 1/07" \$#!P2B: /3>!MOA, B!cTI!

%3!011/=/23L!=E, B, !/-!0!-, A0B0=, !1/>/=0.!1/</1, 0!./=, B0=9B, !.22: /3>!0=!@E2!/-!-28/0...J!, W8.91, 1! ?B2D!=E, !1/>/=0.!@2B.15!PB/=, B-!/3!=E/-!=B01/=/23!0B, !/3=, B, -=, 1!/3!0!B03>, !2?!?08=2B-!-98E!0-!8.0--L! B08, ! 031! >, 31, B! N9=! =E, B, ! 0B, ! 0.-2! -A, 8/?/8! -=91/, -! 2?! 2.1, B! 0>, ! /3! B, .0=/23! =2! 1/??, B, 3=! =, 8E32.2>/, -!4g9L!#../-23L!! F 8G0DD23!031! "03>0L!QI+\f!GE291B/, L!ME, , B0AE9=B03>E: 223! 031! (0<0B/L!QI+Z;L!, WA.2B/3>!=E, !/3?.9, 38, !2?!!A0B=/89.0B!?08=2B-L!./: , !.08: !2?!/3=, B, -=!4&, .-A, BL! QIIY;5!KE/-!0AAB208E!/-!0.-2!-2D, =/D, -!?B0D, 1!/3!=, BD-!2?!N0BB/, B-5!

) 3,!AB2N., D!/3!N2=E!2?!=E, -,!./=, B0=9B, -!/-!/-!=E0=!=E, J!-2D, =/D, -!82DN/3,!0..!A, 2A.,!2<,B!0! 8,B=0/3!0>,!4,5>5!GE0B3, --L!\*5!031!` 22=L!P5S5!4QI I Y;L!@E/8E!12, -!12!32=!12!h9-=/8,!-A, 8/?/80..J! =2!03J! 1/??,B,38,-!N,=@,,3!2.1,B!031!J293>,B!2.1,B!A,2A.,!4eB/,D,.L!QI+\f!&0B>/==0/!031! (2NB03-: JL!QI+T;5!\%3!011/=/23L!@E0=!=E,-,!0AAB208E,-!2?=,3!-E0B,!/-!0!?289-!23!/--9,-!B,.0=,1! =2!N,/3>!2.1,B!0-!03!0>,C-=0>,]!0=!=E/-!A2/3=!/3!./?,!A,2A.,!E0<,!82DD23!,WA,B/,38,5!' 31L!@/=E!,W8,A=/23-L!-2D,!2?!=E/-!@2B:!/DA./,-!=E0=!=E/-!/-!0!?/W,1!,WA,B/,38,]!/3!+I!J,0B-\_!=/D,!=E,I3,W=! 82E2B=!2?!2.1,B!A,2A.,!@/..!E0<,!-/D/.0B!,WA,B/,38,-!-/DA.J!NJ!</B=9,!2?!N,/3>!2.1,B!A,2A.,5! PE/.,!32=!1,3J/3>!=E,B,!D0J!N,!-2D,!0>,C-=0>,!,??,8=-L!=E/-!0AAB208E!/-!0.-2!N,/3>!8E0..,3>,1!,DA/B/80..JL!0-!2.1,B!A,2A.,-!1/>=0!,WA,B/,38,!/-!08=90..J!/3!=E,!AB28,--!2?!8E03>/3>5!

%3!=E,!R\$L!M,@!E0<,!N,,3!823198=/3>!-9B<,J-!2?!/3=,B3,=!9-,!?2B!1,801,-!031!e!(3)-2.5(!10.9(T0q0.2400)

F, 1/07" \$#!P2B: /3>!MOA, B!cTI!

D2B, IB, 8, 3=I.J29=E?9.!>, 3, B0=/23-L!./: ,!D/..., 33/0.-L!=E, B, I/-!23, !-=B031!2?!@2B: !/3!=E/-!=B01/=/23! =E0=! E0-! 8238, 3=B0=, 1! 23! 03!, 0B./, B! >, 3, B0=/23! =E0=! E0-! 32@! B, 08E, 1! 2.1, B! 0>, 5! KE, -,! B, -, OB8E, B-! O==B/N9=, !=E,!>, 3, BO.! 8E03>,!/3!=E,!, WA, B/, 38,!2?!2.1, B! O>,!=2!=E,!?08=!=E0=!=E,! `ONJN22D, B!82E2B=X!E0-!0BB/<, 1!0=!=E/-!0>, C-=0>, !/3!./?, 5!6/..., OB1!031!&/>>-!4Q11Z;!0B>9, !=E0=! >, 3, B0=/23!@0-!4031!-=/..!/-;!0!<03>90B1L!-, ==/3>!03!2B/, 3=0=/23!?2B!?9=9B, !82E2B=-!i!/5, 5!E, B, !/-! 0!D0h2B!>, 3, B0=/230.!NB, 0: L!0-!`0NJN22D, B-!0B, !<, BJ!1/??, B, 3=!?B2D!AB, </29-!82E2B=-L!N9=!., --! 1/??, B, 3=!?B2D!-9N-, b9, 3=!23, -!!\$2D, L!./: , !=E, !0N2<, !09=E2B-L!E0<, !-=B, --, 1!=E0=!0?=, B!=E, J!E01! A0--, 1!=EB29>E!0!B, N, ../29-!J29=El!B, h, 8=/3>!0..!=E/3>-!2.1l!=E/-!/-!0!>, 3, B0=/23!=E0=!E0-!-29>E=! =2!D0/3=0/3!/=-!J29=E?9.3, --!i!0/1, 1!NJ!/=-!, 3>0>, D, 3=!@/=E!A2-=!P2B.1!P0B!K@2!823-9D, B! 89.=9B, 5! ' !823=, DA2B0BJ!, WODA., !@29.1! N, !N031-!?B2D!=E,!+Y\I-!031!+YTI-!=E0=!0B,!-=/..! A, B?2BD/3>!@E, 3!=E, /B!D, DN, B-!0B, !32@!/3!=E, /B!\I-!031!TI-5!' 32=E, B!, W0DA., !/-!^N21J!@2B: \_! 2B!^N21J! D0/3=, 3038, \_!0-!03!23>2/3>! AB2h, 8-L!, ???2B=-!=2! D0/3=0/3!0!J29=E?9.!0AA, 0B038, !/3! 2.1, BIO>, 5IIG, B=0/3.JLI23, IB, 8, 3=I-=91JI32=, 1I=E, I/DA2B=038, I?2BI-2D, I2?I>2/3>I=2I=E, I>JDLI031I : , , A/3>!0!-D0B=!0AA, 0B038, L!/3!823=B0-=!=2!=E, /B!2@3!A0B, 3=-!@E2!1B, --, 1!D2B, !/3!0!@0J!=E0=! D01,!=E, D! .22:! 2.1! 4P 221-AB/3>L! QI +Z;5!! KE,!, DAE0-/-!/3!=E,!.0==,B!-=91J!/-!=E0=!=E,! `ONJN22D, B-!/3!/3!=E, /B!, OB./, B!./?, !3, <, B!?, .=!-2!823-=B0/3, 1!NJ!, W/-=/3>!32BD-!/3!=, BD-!2?!E2@! =2!./<,!=E,/B!./<,-L!031!=E/-!A,B-A,8=/<,!E0-!80BB/,1!2<,B!/3=2!E2@!=E,J!

F, 1/07" \$#! P 2B: /3>!MOA, B!cTI!

2.1, B!2.1, B!A, 2A., ]!/=!/-!32=!0..!2.1, B!A, 2A., !0B, !N, E0</3>!1/??, B, 3=.JL!N9=!-A, 8/?/80..J!J293>, B! 2.1, B!A, 2A., !0B, !/3=B2198/3>!=E/-!8E03>, !N, 809-, !2?!=E, /B!>, 3, B0=/230.!N08: >B29315!!

-!@/=E!-988, --?9.!0>, /3>L!=E0=!-=/..!., 0<, -!=E, lb9, -=/23!2?!E2@!>, 3, B0..J!1/??, B, 3=!0AAB208E, -! =2!2.1, B!0>, !08=90..J!=B03-.0=, !/3=2!1/??, B, 3=!1/>/=0.!N, E0</29B]!E2@!D/>E=!-2D, !2?!=E, !0=:/=91, -! 031! <0.9, -! 0--28/0=, 1! @/=E! =E/-! >, 3, B0=/23! E0<,! 0! N, 0B/3>! 23! 1/>/=0.!, 3>0>, D, 3=a! e2B!, W0DA., L!?2B!-2D, !/3!=E/-!82E2B=!12, -!03J!B, h, 8=/23!23!N, 82D/3>!2.1!031!@03=/3>!=2!-0J! J29=E?9.!/38.91, !1, D23-=B0=/3>L!, <, 3!/?!23.J!?2B!23, \_-!-, .?C/1, 3=/=JL!0!1, -/B, !32=!=2!N, !^., ?=! N, E/31\_!NJ!=, 8E32.2>/80.!8E03>, L!AB2</3>!=E0=!23, !803!-=/..!^:, , A!9A\_a!!%-!/=!/3!A0B=!0!B, h, 8=/23! 2?!0--9DA=/23-!031!-=, B, 2=JA, -!0N29=!2.1, B!A, 2A., \_-!/380A08/=J!=2!82A, !@/=E!=, 8E32.2>/80.! 8E03>, a!! F 2B, !-A, 8/?/80..JL!/-!=E, /B!, 3>0>, D, 3=!@/=E!823-9D, B!89.=9B, !., 01/3>!=E, D!=2!9-,! 8, B=0/3! =, 8E32.2>/, -! @E, 3! B, -, 088E/3>! 823-9DA=/23! 1, 8/-/23-a! eB2D! =E,! ^0NJN22D, B! ./=, B0=9B, L!=E, -,!D/>E=!N,!-2D,!2?!=E,!0B, 0-!@E, B,!@,!3, , 1!=2!AB2N,!/3!2B1, B!=2!011!=2!29B! 931, B-=031/3>!2?!8E03>, -!/3!=E/-!>, 3, B0=/23\_-!1/>/=0.!, 3>0>, D, 3=!0=!E/-!./?,!-=0>, 5!

' .=E29>E!/=-!2B/>/3-!803!N, !?2931!/3!=E, !.0=, !+Y\I -!031!, 0B.J!+YTI-!4#.1, BL!+YYX;L!./?, !829B-, !
030.J-/-!E0-!N, , 3! 012A=, 1! D2B, !@/1, .J! 2<, B!=E, !.0-=!QI!J, 0B-!4e, BB0B2!031!\$8E0?, BL!QI+T;5!
PE/., !=E/-!B, -, 0B8E!/-!32=!93/b9, .J!?289-, 1!23!931, B-=031/3>!=E, !, WA, B/, 38, -!2?!2.1, B!A, 2A., L!
=E, !0AAB208E!/-!, -=ON./-E, 1!/3!=E, !?/, .1!2?!>, B23=2.2>JL!, -A, 8/0..J!/3!=E, !12D0/3-!2?!E, 0.=E!031!
@, 0.=E!/3!.0=, B!./?, 5!"/: ,!>, 3, B0=/230.!030.J-/-L!/=!823-/1, B-!=E, !/3?.9, 38, !2?!=E, !NB201, B!-28/0.!
8231/=/23-!/3!@E/8E!A, 2A., !./<, 1!=E, /B!, 0B./, B!./<, -L!N9=!32=!h9-=!=E, /B!?2BD0=/<, JJ, 0B-5!#W0DA., -!
/38.91, !>, 3, B0.!, 8232D/8!8/B89D-=038, -\L!=E, !.23>E, !.23>B23820.7 (/) 8.4 (B) 25.4 (!) (.) 8.47 (-8.305c (2)

F, 1/07"\$#!P2B:/3>!MOA, B!cTI!

03!, 0B./, B! = 0 >, !/3! ./?, !803! N, !B, ?., 8 =, 1!2B!, <, 3!, W08, BN0 =, 1!/3! .0 =, B! ./?, !4G2B30L!QI + H;5! K2!03!, W =, 3 = ! ./?, !

F, 1/07" \$#!P2B: /3>!MOA, B!cTI!

>, 3, B0=/23-<sup>z</sup>!0B, !=E, !82E2B=-!2?!A, 2A., !@E2!, WA, B/, 38, !=E, -, !1/??, B, 3=!N0=8E, -!2?!=, 8E32.2>J!/3! =E, /B!, 0B.J!./<, -5!F 2B, !-A, 8/?/80..JL!=E/-!./=, B0=9B, !E0-!?289-, 1!23!=E, !/3=, B?08, !2?!1/??, B, 3=!=JA, -! 2?!=, 8E32.2>J!! AB2198/3>!=E,!?2..2@/3>!=JA2.2>J! 4" /DL! QI +I;]!=E,! D, 8E03/80.!, B0! 82<, B/3>! AB2198=-!N, ?2B, !+YHIL!=E,!, ., 8=B2CD, 8E03/80.!, B0L!AB2198=-!N, =@, , 3!+YHIC\IL!031!=E,!1/>/=0.! -2?=@0B,!, B0L!AB2198=-!0?=, B!+Y\I5!KE,!0B>9D, 3=!/-!=E0=!2.1, B!A, 2A., !4/3!=E,!A0-=;!E01!32=!, WA, B/, 38, 1!1/>/=0.!/3=, B?08, -!@E, 3!=E, J!@, B,!J293>, B!031!-2!?2931!=E, D!=2!N,!1/??/89.=!=2!9-,!/3!.0=, B!./?, 5!

`9=!@,!D0J!3,,1!=2!=0:,!0!NB201,B!</,@!2?!@E0=!8293=-!0-!A-=!=,8E32.2>/80.!,WA,B/,38,-5!%3!0!RI!-=91J!!A0B=/8/A03=-!10=,1!=E,!D0h2B!D2<,!=2!2??/8,!82DA9=,B/-0=/23!=2!=E,!.0=,!Z1-!031!,0B.J!Y1-!4`9-,L!01+I;5!'.=E29>E!-2D,!2?!=E,-,!/3=,B</,@,,-!E01!0=!=E,!=/D,!N,,3!03W/29-!0N29=!=E,!8E03>,L!0=!=E0=!-=0>,!/3!./?,!D03J!E01!82A,1L!9-0>,!N,80D,!^,DN21/,1\_!031!09=2D0=/8!=EB29>E!AB08=/8,5!%3!2=E,B!@2B1-L!0.=E29>E!=E,!=,8E32.2>J!1/1!32=!0AA,0B!/3!=E,/B!^?2BD0=/<,\_!J,0B-!0-!J293>,B!019.=-L!031!=E,J!-2D,=/D,-!B,A2B=,1!=E0=!/=!E01!N,3!0!-B9>>.,!=2!.,0B3!E2@!=2!9-,!=E,!3,@!=,8E32.2>J!!D03J!E01!D030>,1!=2!12!-2!NJ!=E,!=/D,!2?!B,08E/3>!B,=/B,D,3=5!F2B,2<,BL!/=!@0-!32=h9-=!=E,I0BB/<0.!2?!0!3,@!1,</B,-!./:,182DA9=,B!=,8E32.2>J!A,B!-,!=E0=!@0-!0!8E0...,3>,!N9=!-2!=22!@,B,!.0=,B!/38B,D,3=0.!23>2/3>!=,8E3/80.!1,<,.2AD,3=-!4,5>5!AB2N.,D-!

F, 1/07"\$#!P2B:/3>!MOA, B!cTI!

KE/-!-=91J!0.-2!/31/80=, -!E2@!/=!/-!/DA2B=03=!=2!.22: !N, J231!@E0=!A, 2A., !1/1!@/=E!=, 8E32.2>J!! =E, /B!9-0>, L!=2!0.-2!0-: !D2B, !NB201.J!0N29=!=E, /B!, 38293=, B!@/=E!=, 8E32.2>J5!e2B!, W0DA., L!@, !E0<, !`9-, \_-!b9, -=/23!0N29=!E2@!E, B!A0B=/8/A03=-!82A,

F, 1/07" \$#!P2B: /3>!MOA, B!cTI!

/3=, B, -=, 1!AB, </29-!>, 3, B0=/23-!2?!J293>!2.1, B!A, 2A., L!N9=!-/DA.J!1/1!32=!, W/-=!QI!J, 0B-!0>25!
\* 2=!0..!8E03>, !/-!<2.93=0BJ]!A, 2A., !2?!0..!0>, -!0B, !-2D, =/D, -!AB, --, 1!=2!9-, !1/>/=0.!B, -29B8, -!
/3! 2B1, B! =2! 08E/, <,!>20.-5! e2B!, W0DA., L!/38B, 0-/3>.J!/3! B, 8, 3=! J, 0B-! =E, B, !/-! -2D, =/D, -!32!
0.=, B30=/<,!N9=! =2! >2! 23./3,!4' >,!RI L! QI +Z;L! 2B!, .-,!=E0=!/-!NJ! ?0B! =E,!, 0-/, B! 2A=/23L! 0-!/3!
0AA.J/3>!?2B!0!-, 3/2B!8/=/d, 3!=B0<, .!A0--L!A0J/3>!B201!=2..-L!0-!/3!=E,!9-,!2?!=E,!( 0B=?2B1!K933, .!
2B!=E,!"23123!G23>, -=/23!8E0B>, ;L!2B!/?!A0A, B!N/..-!4, 5>5!?B2D!9=/./=/, -;10B,!-8B0AA, 1!031!23.J!
,., 8=B23/8!<, B-/23-!0B,!0<0/.0N., 5!e/30..JL!=E, B,!/-!=E,!-28/0.!AB, --9B,!=2!9-,!=, 8E32.2>JL!0-!@E, 3!
?0D/.J!031!?B/, 31-!9-,!</1, 28E0=!-98E!0-!\$: JA,!2B!/38B, 0-/3>!82DD93/80=,!NJ!\$\* \$!-98E!0-!
e08, N22: 5!%3!2=E, B!@2B1-L!=2!@E0=!, W=, 3=!12, -!=E,!89BB, 3=!>, 3, B0=/23!2?!J293>, B!2.1, B!A, 2A.,!
9-,!=, 8E32.2>J!D2B,!82DA0B, 1!=2!AB, </29-!82E2B=-!?2B!=E,!-0D,!B, 0-23-!0-!=E,!B, -=!2?!=E,!
A2A9.0=/23!9-, -!D2B,!1/>/=0.!2A=/23-5!

F, 1/07" \$#!P2B: /3>!MOA, B!cTI!

/3?.9, 3=/0.!0-!0!-28/0.!823-=B98=/23!/3!/=-!2@3!B/>E=!!A2/3=-!=2!8E03>, -!/3!=E, !./?, -=J.,!2?!2.1, B!
A, 2A.,! D2B,!>, 3, B0...J5! k0B/29-!,.., D, 3=-!@, B,!, WA.2B, 1!=2!-, ,!E2@!031!@EJ!-98E!8E03>, -!
D0J!., 01!-A, 8/?/80...J!=2!3, @!=, 8E32.2>/80.!8E2/8, -LIN9=!23, IAB2N., D!@/=E!=E/-!@E/.,!?8DD, @2B:!
/-!=E0=!/=! 12, -! 32=!, WA.0/3! @EJ! N, /3>! 2.1, B!/-! 8E03>/3>5! 6, 3, B0=/230.! 030.J-/-! 12, -! =E/-L!
A2/3=/3>!=2!=E,!0>, /3>!2?!0!A0B=/89.0B!82E2B=!!=E,!` ONJN22D, B-L!031!=E,!1/??, B, 3=!<0.9, -!031!
0=/=91, -!=E, J!NB/3>!=2!2.1, B!0>, 5!) 38, !0>0/3L!=E, B, !0B, !-=/...lb9, -=/23-!0N29=!E2@!=E/-!=B03-.0-, -!
/3=2! 1/??, B, 3=!9-,!2?! %GK-!82DA0B, 1!=2! AB, </29-!>, 3, B0=/23-5! %?!=E, J!>, 3, B0=/230.! 030.J-/-!
-=B, --, -!@E0=! D/>E=!N,!82DD23!/3!=E/-!82E2B=L!./?,!829B-,!030.J-/-!803!E,.A!=2!, WA.0/3!=E,!
1/??, B, 3=! =, 8E32.2>/80.! 8E2/8, -!@,!?/31! @/=E/3! 0!>, 3, B0=/23L! 0-!@,...! 0-! A2/3=/3>!=2! 2=E, B!
E/-=2B/80.!/3?.9, 38, -!N, J231!=E,!?2BD0=/<,!J, 0B-5! %3!823=B0-=!=2!=E,!, DAE0-/-!23!0>, /3>!/3!
>, 3, B0.L!23,!803!0-:!0N29=!E2@!, 38293=, B-!@/=E!%GK-!/3!=E,IA0-=!D0J!E0<,!0!N, 0B/3>!23!@EJ!
=E/-!82E2B=\_-!0AAB208E!=2!=E,!1/>/=0.!@2B.1!/-!8E03>/3>!32@5! PE/.,!=E0=!0AAB208E!2B/>/30...J!
?289-, 1!23!?0D/./0B/=J!@/=E!1/??, B, 3=!/3=, B?08, -L!@/1, B!b9, -=/23-!803!N,!0-:, 1!0N29=!=E,!30=9B,!
2?!=E2-,!A0-=!=, 8E32.2>/80.!, WA, B/, 38, -5!e/30...JL!0! 1/??, B, 3=!0AAB208E!=2!.22: /3>!=2!89BB, 3=!

## $\%\&'()^*()_+, *)^*-'.+/*01_+^*(+-&1_+#12_+3.4_+5)1_+$

F, 1/07" \$#!P2B: /3>!MOA, B!cTI!

&93-0: ,BL!' 5!!031!&0B>/==0L!#5!4QI+Z;!' !B, </, @!2?!/3=, B3, =!9-, !0D23>!2.1, B!019.=-!1 1!QI4+1; 1!HYHT! 1!HYHT!

mOD, -L!' 5!031!MB29=L!' 5!4, 1-;!4+YYT;!

L!" 23123]!e0.D, B!MB, --5!!

I, 33, 1JL!&5!4QIIH;!K, 8E32N/2>BOAEJ]!S, -, 0B8E!./<, -L!23./3, !031!2?!2??!! !Q\4+;]!+QICHY5!

"/DL!G5!4QI+I;!(,-/>3/3>!/38.9-/<,!%GK!AB2198=-!?2B!2.1,B!9-,B-]!=0: /3>!/3=2!088293=!=E,!=,8E32.2>J! >,3,B0=/23!,??,8=L! !Q+4Qi H;]!+ZYi QI \5!

"22-L!#5!031!%03L!"5!4QI+Z;!k/-90.!0>,/-D!/3!=E,!D,1/0L!AA5+\HC+T\!/3!' J0.23L!"5!031!K,-8ECS2, D,BL! G5!4,1-5;! L!`,B./3]!\$AB/3>,B!K,B.0>5