

H = @ A@ Q ? = ?E=jNA HI L H A@ A B O RKN@R H =JNE B E ?@ @AKJ K O D =



| | | | | | | |
|-----------|----------------------------------|-----------------------------------|-----------------------------|---------------------------|------------------------------|--|
| ½ Á Š » : | A O ? N E L ? E > F A R R D@ A H | J E ? R=Q E N K C N N > F A R R D | A ? D@ A A N I E J = ? E | A N=N E A J @ AA @ E ? | A N O K J : A O L K J O : | ½ » ½ ½ < ½ » ? P Q = H E V@=A O P = @ K |
|-----------|----------------------------------|-----------------------------------|-----------------------------|---------------------------|------------------------------|--|

=L=?EPN=HJ QARK LANDKJ=H@ OK>NA
AHQK @AKO@PKO@H AN=OKH>KNHMDA
OAAJ?QAU P@J AJ AH@EJK @H AL=N@J AJPK
@A AQ>NNKH@H QANV= =>KNH i
U

C K I O P
= J Q = H AA J P
O A C Q A =
JA ? A O = N E K

J ? Q A O P
L M R EU=

K K@I E J = @
AQ@H AHLNK?ACK
ANGEO U
AC@K=H =NAAN
=PDS=UO

NA O A J P =@?AE j J = H A N O K@JA= UO K ? E K I O @NE = @ K @AH
A O P =@AKH@H = @H@K =@K@AH
? K J @ =@AKJ K O D =

C K I O P
= J Q = H AA J P
A PKN@HE I
C N Q@IA
A JKBM Q A

K K@I E J = @
L M ? A OAK@ E J O
U A C E K J
= M A N@ PSD=UO

½ > i
AQ>NNKH#NQJ
LNK?AKL=N@
ERKHO?N=N=HKO
L=@AOAJ H@
LHJ@B=/?E J
=?=@ I B=U
LNKB@EJK=HMDA
@?H@U%

½ Š J BKN =NOK>NA
HKOCANRE@KO@AH
Š

NKLKN@EJK=N
LNKN@H =OU
CANRE@KO@A
MQA OA=J R-HKN=@KO
LKNH@KOL=@AOU
=UQ@NKO
AJ PAJ @ANI AFRN
U=LKU@N=OOO
AOQ@EJPAO
K>FARREKOUJHJAQ@A
=?E J Š

KOL=@AO@PQKNAOCANKJ LNAOU P=@KO+H
LKNP@H=N@L=@AO@A AH@K @Q@J PA ÁŠ
=?E@P=/?E J

?P@NA
=JQ@H AJPA

J BKN A @A
L=N@P@E=/?E J
@AHKOL=@AO
AJ =NAAN
NQ@E C

K@OFAKNO

AHJV AHKN@H
L=N@L=@AO@A AH@K
UOALNAOUP =HO
B@ E@O@A =
P@R O@A
?KJBANJ?E@O@A
KPKhKŠ

J I d@E K @AQJ=NAQJ@J BKN =H@A
L=@AO?KJ AH@Q@EJ PA UAH?KJ @AFANK
AJ HKOON@KO ÁU½»

½ Š qH@EHAO
KLKNPQE@-@AO
L=N@L=N@P@E=NAJ
H L@J@B=/?E J @AH
Š

½ Á Š » :
A M Q E C

A O ? N E L ? E > F A R R D @ A H

J E ? R = Q E N K C = N > F A R R D

A ? D @ A

½ Á Š » :
A M Q E C

A O ? N E L ? E > F A R R D @ A H

J E ? R = Q E N K C = N > F A R R D

| ½ Á Š » AM Q E C | A O ? N E L ? E | > F A R R E @ A H | J E ? R = P E N K C = N > F A R R D | A ? D @ A A N I E J = ? E | A N = N E A J @ AA @ E ? | A N O K J A O L K J O | ½ » ½ ½ < ½ » ? P Q = H E V @ - A O P = @ K |
|---------------------|-----------------|-------------------|-------------------------------------|------------------------------|-----------------------------|--------------------------|--|
| | | | | | | | <p>& (6\$ 5 HG\$ 5 & 3 UHSQDUFyQ XQYHUVWVUD SURHMRQDO FRP XQWVUD OMy D FDER YDUUDVUH XQLRQH / . 8 6' DVLWV DFQGD UH XQyQ</p> <p>/ RVHWXGLDQAH/VWHQH ODRSRUWXQGDGHH SDWVLSDUHQ 2 WJDQJ DFLRQH/VGH (WXGLDQAH/GH & DUWHUDV 7 pFQFDV ' (& \$) %/ \$) && / \$ + 2 6\$ \ 6NQOB 6\$ < (GXFDRUHV/HQ DVFHQR</p> <p>ANAHENKJ AT?QNDEKAO= HKO AI LHA=@KNAOK?=HQS</p> <p>KOATDE> EPEKJA O RENQ=HKO@A ?=NNAN=O AJ RERK KNC=J E= @O L=N= AORQE=J PAOGA</p> |

$\frac{1}{2}$ Á Š » :
A M Q E C

A O ? N E L ? E > F A R R E @ A H

J E ? R = Q E N K C = N > F A R R D

A ? D @ A
A N = N E A J

A N O K J :
A O L K J O :
 $\frac{1}{2} \gg \frac{1}{2} \frac{1}{2} \ll \frac{1}{2} \gg$
? P Q = H D U

| | | | | | |
|---|--|---|--|--|--|
| $\frac{1}{2} \tilde{A} \tilde{S} \gg$ A M Q E C | A O ? N E L ? E \rightarrow F A R R \oplus A H | J E ? R \oplus E \& K C \& N > F A R R \oplus | A ? D @ A A N = N E A J | A N O K J A O L K J O : | $\frac{1}{2} \gg \frac{1}{2} \frac{1}{2} \ll \frac{1}{2} \gg$? P Q = H E \oplus A O P = @ K |
|---|--|---|--|--|--|

į Š j I KAHLNKONH = @
 A@Q=?E J L=N AH
 AI LHAK>NEJ @NK=??AOK
 =HKO?QNN?QHKO
 =LHP=@KO ONRE?EKO@
 KNAUJP=?E J U
 =OOKNH EAJPK
 LNAL=N=?E J P ?JE=?
 =LNAJ @A=FA @AF RAJAJO
 AEOPNQ??E J AJ
 D=>E@AO
 NAH=?EJK=@O?KJ AH
 AI LHAKŠ

QN=JPAH=AQQAH
 OA?QJ @NE=TPK@OHKO
 AORQ@EJPAO
 EJRAOPC=NKJ KL?EJKAO
 LKOPA?QJ @NEOU
 LNKBAOIKJ=IAQ
 NARE=NKJ OQLHJ @

| | | | |
|--|---|---|---|
| <p>$\frac{1}{2} \text{ Á Š » : }$</p> <p>$\text{A O ? N E L ? E } > \text{F A R R } \text{ @ A H}$</p> <p>$\text{A M Q E C}$</p> | <p>$\text{J E ? R = P E N K C = N } > \text{F A R R } \text{ @}$</p> <p>$\text{H O A O @ A P = N P K H I A C A K S }$ $= P A S = U A ? D J E = H K H I A C A$</p> | <p>A ? D @ A A N = N E A J </p> <p>$\text{A N I E J = ? E } @ \text{A A @ E ? }$</p> | <p>A N O K J A O L K J O : </p> <p>$\text{? P Q = H E V @ = A }$ O P = @ K </p> |
| <p>$\frac{1}{4} @$</p> <p>$\text{I L H A I A J @ J = N }$ $\text{A O = P A N C E = N }$ $\text{E B K H Q N N H = O }$ $\text{A I L A O H G = D }$ $\text{E J O P E P @ ? A E K J }$ $\text{A @ Q ? = ? E j J }$ $\text{L K O P O A ? Q I H @ }$ $\text{B Q A N V = K H N }$ $\text{@ A O K = H N N K I = }$ $\text{L H = J E B E C ? A = J ? A E }$ $\text{A J ? K J O K J ? J K ? E }$ $\text{H = J O A ? A O E @ = @ }$ $\text{L M U A ? P = @ = O \check{S}}$</p> | <p>$\text{= O A I L N A Q - O H K ? = H A C @ }$ $\text{H K O O K ? E K O }$ $\text{L K O D A ? Q J @ N K O U A H }$ $\text{@ Q = N K H H K @ A H = B Q A N V = }$ $\text{H > K N = H O A N A Q J E K J }$ $\text{? K J A H L A N D K J = H @ A }$ $\text{L = N L H J E P = N }$ $\text{H O U A ? A D @ = @ O }$ $\text{B Q P N = \check{S}}$</p> | <p>$\text{Q N D K O @ A = N D O K A ? ? A O D P K K H I A C A N A Q P }$ $\text{; A J A O P Q A H O O A ? Q J @ N E O U = N U }$ $\text{K H I A C A N A Q P N K C N H }$ $\text{; E O P E Q ? E K J A O L K O D A ? Q J @ N E O H K ? = H A O }$ $\text{A B J R P = N K = H O A I L N A Q - O = H N A Q J E J }$ $\text{@ A L A N D K J = H @ A @ = O D P K L = N = }$ $\text{= H = H = N A H L H J @ A A D P Q @ K O F }$</p> | <p>$\text{J B K N A @ A }$ P K @ K H K O $\text{= H @ J K O @ A H K O }$? Q N D K O </p> |

| $\frac{1}{2} \text{ Á } \check{\text{S}} \text{ » }$ A M Q E C | A O ? N E L ? E | > F A R R E @ A H | J E ? R = P E N K C = N N > F A R R D | A ? D @ A A N I E J = ? E | A N = N E A J @ AA @ E ? | A N O K J A O L K J O | $\frac{1}{2} \gg \frac{1}{2} \frac{1}{2} \ll \frac{1}{2} \gg$? P Q = H E V @ - A O P = @ K | |
|---|--|---|--|-----------------------------------|--|---|---|--|
| | | | K I P @ A E O N = V O K @ A A N G E J O A G - N N K H A Q J = L X O E J = A J A H O E K S A > @ A O K ? E ? E K J A O K I A N P E H A O = N K > P A J A N Q J = @ A O N E ? E J C A U A N H @ A H O B K N = O A J M Q A H ? K I Q J E @ @ A I L N A G - N E - H L Q A @ A L = N P E E = N Š | Q H K 1 \frac{1}{2} 1 \frac{1}{4} | ? P = @ A N A Q J E J J O P = J P X J A = @ A H L X O E J = S A > @ A | A N O K J = H @ A š š M Q E K @ A H O N = V O K @ A J Q E B A | K J P E J q = @ A G - N N K H B J @ K O A Š K ? E K O ? K I A N P E H A O @ A N E Q K O - H O E K S A > @ A U = H O E K S A > @ A | |
| $\frac{1}{2} = i$ | N K L K N P E K J = N ? K J K ? E E B A J P K @ A H = N N A N = A J A H J E R A H A O A H A N A U P H A O Š Q L A ? E P = I A J P A % 1 \check{\text{S}} K N M Q H C A J P A • P N > = F \check{\text{Z}} 1 \check{\text{S}} = O ? K J @ ? E K J A O > = F K H O ? Q = H O H O L A N D K J = O P N > = F J Š 3 \check{\text{S}} K O J E R A H A O @ A B K N = ? E J U A @ Q ? = ? E J J A ? A G - N K O L = N = A H P N > = F K Š T L A ? P = F E R - O ? K I Q J A O L = N = H K O A I L H A = @ K O A J A H H O C = N @ P N > = F K Š A \check{\text{S}} j \ I K O A N A H ? E K J = J H O A T L A ? P = F E R - O A J H A Q P Q A H ? K J H O A T L A ? P = F E R - O A J A H I Q J @ K H > K N H \\$ | H ? K I L H A P = N H K O A \check{\text{S}} C N = @ K H K O A Q P Q E J P A O A J P A J @ A N M Q A D = U Q J = C N J R - N A @ @ @ A K L K N P Q J E @ @ A O L N K B A D E K J = H A O @ O L K J E S H A O U M Q A O A J A ? A O P = I Q ? D K P N > = F K ‡ A @ Q ? = ? E J U ? = L = ? E P = ? E J L = N D = ? A N H K > E A J \check{\text{S}} | = O = ? P I R E @ @ A O @ A T L H K N = ? E J @ A ? = N N A N = O U D > H H O @ @ O O A H M A R - J = ? = K A J ? = @ C N = @ K @ A L N E = N E A J A H A O @ A I = N K Š | = N K = J Q = H I A J P A | H = J @ A H A ? ? E K J C A J - A @ N K C L K A H I = A O K P N A ? Q N @ A A F A I L H K T L H E K N E j . @ A = M A N % L N E I = N E | ? K J O A F A N K O @ A H A Q P Q A H L N E = N E ^ I = A O P N K O @ A Q P Q K O K ? E H A O N A H ? E K J = @ K ? K J H O ? = N N A N = \check{\text{S}} | K O ? K J O A F A N K O @ Q P Q A J H O ? = N N A N = O F Q J P K ? K J A H L H J @ A A Q P Q @ K O @ A Q P Q @ K O K ? E H A O N A H ? E K J = @ K ? K J H O ? = N N A N = \check{\text{S}} | K O A Q P Q E J P A O @ A j \check{\text{S}} U \check{\text{A}} \check{\text{S}} C N = @ K @ Q P Q A J Q Q O B K N P H A V - O A E J P A N A O O U ? I K L Q A @ A J H M A R - N = B Q P Q N = O K L ? E K J A O @ A ? = N N A N = \check{\text{S}} = O D > H H O @ A O O K ? E H A O U H O A T L A ? P = F E R - O @ A ? K I L K N P = I E A J P K N A H ? E K J = @ O ? K J I = J P A J A N Q J P N > = F K O A @ Q P = ? J @ Q N J P A H O H A ? ? E K J A O @ A H ? K J O A F A N K Š |

| | | | | | | |
|---------------------------------------|---|--|-----------------------------|---------------------------|----------------------------|--|
| $\frac{1}{2} \tilde{A} \tilde{S} \gg$ | A O ? N E L ? E > F A R R D@ A H | J E ? R=Q E N K C=N > F A R R D | A ? D@ A A N I E J = ? E | A N=N E A J @ AA @ E ? | A N O K J A O L K J O : | $\frac{1}{2} \gg \frac{1}{2} \frac{1}{2} \ll \frac{1}{2} \gg$? P Q = H E V@=A O P = @ K |
| $\frac{1}{2} >_j$ | <p>NKLKNPEKJ=N ATLHKN=?E J @ ?=NNAN=OAJ HKOU BRAAO @AH ACQQAH @PAN AEŠ QA?DE=I AJPA%</p> <p>$\frac{1}{2} \tilde{S}$ KJ PEJ QE@-@A ?=NNAN=QS $\frac{1}{2} \tilde{S}$ HEA=?E J @ HKO @PANAQASD->HE@ =@AOLANDJ=HAO CANAH=?EKJ=J ?KJ AQ-O?=NNAN=QS $\frac{3}{2} \tilde{S}$ LNAJ @VAFA >=Q=@KAJ AH PN->=PKAJ H ACQQAH QA?QJ @NEŠ ?ŠJRADC=?E J @A?=NNAN=L=N EQAJ REEP=N LNABANAJ ?E-O LANDKJ=HAQS</p> | <p>H?KI LHAP=NHKOAS ON=@KTHKO AQOQEJPAO AJPAJ @ANKJ ?j I K =HEA=NOOO D->HE@-QAOA @PANAQAO LANDKJ=HAO=QJ= =I LHE q!!W uCq!!W</p> | | | | |

$\frac{1}{2}$ Á Š » :
AM Q E C
 $\frac{1}{2}$?

A O ? N E L ? E > F A R R E @ A H

J E ? R = Q E N K C = N > F A R R D

A ? D @ A
A N = N E A J

A N O K J : $\frac{1}{2} \gg \frac{1}{2} \frac{1}{2} \ll \frac{1}{2} \gg$
A O L K J O : ? P Q = H E V @ = A
O P = @ K

| | |
|---|--|
| <p>$\frac{1}{2} \text{ Á } \check{\text{S}} \text{ » : }$</p> <p>A M Q E C</p> <p>=HQ JKO=</p> <p>LNKONH =O@A</p> <p>A@@?=?F J</p> <p>LNKBAOKJ=HU</p> <p>P ?J E=‡</p> <p>E ?KQ@KO</p> <p>LNKONH =OAJ</p> <p>?KHAC@KO</p> <p>P ?J E@K\$</p> <p>$\check{\text{S}}$??AO@HKO</p> <p>=HQ JKO=</p> <p>E@BKN =?F J</p> <p>LNA?E= @AH</p> <p>I ANP=@K H>KNH</p> <p>J=?E@KJ=‡</p> <p>NAC@KJ=HU</p> <p>AOP=P@EJ ?HQ@-</p> <p>H@KBANP UH</p> <p>@A =J @- @AH</p> <p>I ANP=@K H>KNH\$</p> <p>$\check{\text{S}}$ JOPNQ=?F J U</p> <p>ATLANEJ ?E AJ</p> <p>AH@G@NNKH@KU</p> <p>LANBA??E@KJ=I EAJ</p> <p>PK @AHO</p> <p>D>H@- @AOU</p> <p>?K@ LKNP=I EAJ PK</p> <p>OMQAJA?AOP=J</p> <p>HKO=HQ JKO</p> <p>L=N K>PAJANU</p> <p>?KJ OANR=NQJ</p> <p>AI L@AK\$</p> | <p>A O ? N E L ? E > F A R R @ A H</p> <p>J E ? R@P E@N K C@N > F A R R @</p> <p>A ? D@ A A N I E J = ? E</p> <p>A N = N E A J @ AA @ E ?</p> <p>A N O K J A O L K J O :</p> <p>$\frac{1}{2} \gg \frac{1}{2} \frac{1}{2} \ll \frac{1}{2} \gg$</p> <p>? P Q = H E V@=A O P = @ K</p> |
| <p>N@K 1/1%H JAO@A NQ=HOK</p> <p>LNKBAOKJ=H@A@E@F J @AH TER@</p> <p>KL?E@KJAO@A PN=UA?PN@LNKBAOKJ=HU</p> <p>AJ PNAREP=O@A PN>=FK</p> <p>KOAO@Q@=J PAO@A OA?QJ @NE</p> <p>L=N@E=J AJ AH NKO@H =@A</p> <p>=OK?E=?F J AI LNAG@EHAJ A@@?=?F J</p> <p>; L=N@E=J PAO@Q@=QOU</p> <p>AI LNAG@OK?@HAOMQA>NEJ @J</p> <p>ATLHN@=?F J @A=?NN@N@N@=?E@KJ=@O</p> <p>?KJ H@O@A?AOP=O@AO@AH ANP=@K</p> <p>H>KNH\$</p> | <p>=NK=JQ@H AJ@A J?QAD@ A</p> <p>QH@@A</p> <p>L=N@E=?F J</p> <p>KKN@=Q@N@A LKUK</p> <p>1/2 1/2 1/2 A@Dh@, @</p> <p>Q@Q@EJ@H@U</p> <p>XI =N@A</p> <p>KI AN@EK</p> |

$\frac{1}{2}$ Á Š » :
A M Q E C

A O ? N E L ? E > F A R R E @ A H

@AHHQ JKŠ

$\frac{3}{4}$?

J E ? R = Q E N K C N N > F A R R D

A ? D @ A
A N = N E A J

A N O K J : $\frac{1}{2} \gg \frac{1}{2} \frac{1}{2} \ll \frac{1}{2} \gg$
A O L K J O : ? P Q = H E V @ = A
O P = @ K