a /B * `MQi R3k9

 $-\hat{u} \sim 2tBQMbbm`HTmBbl$ KQi`B+2/m72m

2 i b m ` H 2 b K + ? B M 2 b T ` Q ` / û p 2 H Q T T 2 ` + 2 i i 2 T m B b b

S2`bQMM&B;MQ`2 [m2 H +? H2m` T2mi i`2 H KQmp2K2Mi- [mö2HH2 TQbb /2 K K2 mM2;` KQi`B+2~, H2b K +?BM2b "p T2m`- mDQm`/ö 2M bQMi mM2 T`2mp2 T `H Mi2 "iQmb H2b v2 *ö2bi "H +? H2m` [m2 /QBp2Mi i`2 ii`B#m KQmp2K2Mib [mB 7` TT2Mi MQb`2; `/b bm` H 2HH2 [m2 bQMi /m2b H2b ;Bi iBQMb /2 Hö iK bBQM /2b Mm ;2b- H +?mi2 /2b THmB2b 2i /2b H2b +Qm` Mib /ö2 m [mB bBHHQMM2Mi H bi /QMi Hö?QKK2 2bi T `p2Mm " 2KTHQv2` TQm

mM2 7 B#H2 T `iB2~c 2M}M H2b i`2K#H2| û`mTiBQMb pQH+ MB[m2b- `2+QMM Bbb2 +? H2m`X

* ö 2 bi / Mb + 2 i B K K 2 M b 2 ` û b 2 ` p Q B` [m 2 T m B b 2 ` H 7 Q ` + 2 K Q m p M i 2 M û + 2 b b B ` 2 M i m ` 2 - 2 M M Q m b Q z ` M i / 2 i Q m i 2 b T ` i b M Q m b / Q M M û H 7 + m H i û / 2 7 B ` 2 M W i ` 2 M i Q m b H B 2 m t H + ? H 2 m ` 2 i H T m B b b M H b m B i 2 X . û p 2 H Q T T 2 ` + 2 i i 2 T m B b b M + 2 -

mb ;2-i2H 2bi HöQ#D2i /2b K +?BM2b " 72
 Göûim/2 /2 +2b K +?BM2b 2bi /m THmb ?
BKTQ`i M+2 2bi BKK2Mb2- H2m` 2KTHQB
DQm`bX 1HH2b T ` Bbb2Mi /2biBMû2b " 7
`ûpQHmiBQM / Mb H2 KQM/2 +BpBHBbûX
2tTHQBi2 MQb KBM2b- 7 Bi KQmpQB` MQ
TQ`ib 2i MQb `BpB `2b- 7Q`;2 H2 72`- 7 ÏO

H2b; BMb-}H2 2i Qm'/Bi MQb ûiQz2b-i T2b Mib 7 \ /2 mt- 2i+X 1HH2 b2K#H2 /2pc /2 KQi2m \ mMBp2\b2H 2i Q#i2MB\ H T\û7 /2b MBK mt- H2b +?mi2b / \"o2 m 2i H2b + Qr bm\ H2 T\2KB2\ /2 + 2b KQi2m\b- H\"op Mi

bm` H2b /2mt mi`2b- Hö p Mi ;2 BM TT`û
bö2KTHQv2` 2M iQmb i2KTb 2i 2M iQmb HB
bQmz`B` /öBMi2``mTiBQM / Mb bQM i` p B
aB [m2H[m2 DQm` H2b T2`72+iBQMM2k
72m böûi2M/2Mi bb2x HQBM TQm` H `;

2M ûi #HBbb2K2Mi 2i 2M +QK#mbiB#H2- 2 [m HBiûb /ûbB` #H2b- 2i 72` T`2M/`2 mt 2bbQ` /QMi BH b2` Bi /B{+BH2 /2 T`ûpQB`

LQM b2mH2K2Mi- 2M 2z2i- mM KQi2m` TmE KQ/2-[m2 HöQM T2mib2 T`Q+m`2` Qmi` MbT bm#biBim2 mt KQi2m`b/ûD"2M mb;2~cK Bb mt `ib QM QM Hö TTHB[m2 mM2 2ti2MbBQN $G2 b2^pB+2 H2 THmb bB; M Hû [m2 H K +$ `2M/m " Hö M;H2i2``2 2bi b Mb +QMi`2/Bi / Hö2tTHQBi iBQM/2b2bKBM2b/2?QmBHH2-, 2i [mB K2M | Bi /2 böûi2BM/`2 2MiB `2K2Mi H /B{+mHiû iQmDQm`b +`QBbb Mi2 /2b ûTr M; H2b b2`pB+2b `2M/mb " H 7 # B+ iBQM / ?QmBHH2-Qz2`i2 p2+ #QM/M+22ibm#biB KQK2MiQM +2mt@+B +QKK2MÏ B2Mi böûTm K +?BM2b TmBbb Mi2b /2 iQmi2b 2bT +2b /Q K + ? B M 2 " 72 m T 2 ` K B b Q m 7 + B H B i û H ö m b ; G2 72` 2i H2 72m bQMi- +QKK2 QM b Bi- H2 bQmiB2Mb/2b `ib Kû+ MB[m2bX AH Mö2tBbi M; H2i2``2 mM ûi #HBbb2K2Mi /öBM/mbi`B2 M2 bQBi 7QM/û2 bm` Hömb ;2 /2 +2b ;2Mib 2KTHQB2 p2+ T`Q7mbBQMX 1MH2p2` mDQm

ûTmBb2K2Mib 2i "Hö2ti\ +iBQM/2b KBM2\ BbX

RXPM T2mi {`K2` [m2 Hö2ti` +iBQM /2 H ?QmBHH2 M;H2i2``2 /2TmBb HöBMp2MiBQM /2b K +?BM2b " 72 T`ûb /2 K K2 /2 Hö2ti` +iBQM /m +mBp`2- /2 Höûi BM 2 T`Q/mBi BH v mM /2KB@bB +H2 T ` H K +?BM2 " 7 /ö M;H2i2``2 b2 `ûT i2 mDQm`/ö?mB bm` H2b KBM2b /MQmp2 m KQM/2- KBM2b /QMi Hö2tTHQBi iBQM /û+HET`BM+BT H2K2Mi " + mb2 /2 HöBMbm{b M+2 /2b KQi2

b2b K + ?BM2b " p T2m` - + 2 b2` Bi HmB ¬i2 2i H2 72` c + 2 b2` Bi i `B` iQmi2b b2b bQ

`mBM2`iQmb b2b KQv2Mb /2 T`QbTû`Biû~ +2ii2 TmBbb M+2 +QHQbb H2X G /2bi`m [mö2HH2 `2; `/2 +QKK2 bQM THmb 72`K2 T2mi@ i`2 KQBMb 7mM2bi2X G M pB; iBQM b?`2 2i ` TB/2 /2b #•iBK T2mi i 2 2; '/û2 +QKK2 mM 'i2MiB '2K2 mt K + ? B M 2 b " 72 m X . û D " + 2 i ` i T 2 ` K B b /2 +QKKmMB+ iBQMb T`QKTi2b 2i `û;mHI /2 K2`- bm` H2b; M/b ~2mp2b/2 Hö M+B +QMiBM2MiX AH T2`KBb /2 T `+Qm`B` b mp; 2b-QM M; m `2 QM TQmp Bi "T2B T2`KBb /2 TQ`i2` H2b 7`mBib /2 H +Bp TQBMib/m; HQ#2QMBHb2mbb2Miûiû ii2 $MM\hat{u}2bXG$ MpB; iBQM/m2 mtK + ?BM22M [m2H[m2 bQ`i2 H2b mM2b /2b mi`2b F HQBMi BM2bX 1HH2 i2M/ "`ûmMB` 2Mi`2 H i2``2 +QKK2 böBHb? #Bi B2Mi iQmb m .BKBMm2`2M2z2iH2i2KTb-H2b7iB;m2k H2b / M;2`b /2b pQv ;2b- Mö2bi@+2 T b # /Bbi M^{*}+\2b

Hö2KTHQB /2 H K +?BM2 " 72m bm` mM M pB`2 Q [m2 HöQM bö2bi #2 m+QmT 2t ;û`ûb- BHb bQMi +Q H 7 +mHiû /2 b2 i2MB` iQmDQm`b bm` mM2 `Qmi2 /2 `ûbBbi2` " Hö2zQ`i /2b p2Mib HQ`b[möBHb TQmb+¬i2b- +QMi`2 H2b # b@7QM/b Qm +QMi`2 H2b û+r

kXLQmb/BbQMb/BKBMm2`H2b/M;2`b/2bpQv;2b

/û+Qmp2`i2 /2b K +?BM2b " 72m /?-THmT `i/2b BMp2MiBQMb?mK BM2b-b M Bb T`2b[m2 BM7Q`K2b-2bb Bb [mB QMi ûiû ii` T2`bQMM2b 2i /QMi QM M2 +QMM Wi T b #E mi2m`X *ö2bi m `2bi2 KQBMb / Mb +2b T `2K +QMbBbi2 H T`BM+BT H2 /û+Qmp2`i2- [m2 / M2K2Mib bm++2bbB7b [mB QMi K2Mû H2b K Höûi i QM MQmb H2b pQvQMb mDQm`/ö?mB mi Mi/2/Bbi M+2 2Mi`2 H2b T`2KB2`b TT ` /ûp2HQTTû H 7Q`+2 2tT MbBp2 / 2 H p T2m` +im2HH2b-[mö2Mi² H2 T²KB2² /2 m [m2 H 7Q`Kû 2i H2 p Bbb2 m /2 ? mi #Q`/X aBHö?QMM2m\/ömM2/û+Qmp2\i2 TT\iB2 +[mBb iQmi bQM ++`QBbb2K2Mi-iQ K2Mib-+2i?QMM2m`M2T2mi i`2B+B`27mbi a p2`v- L2r+QK2M- aK2 i?QM- H2 +ûH #`2 q h`2p2iB+F 2i [m2H[m2b mi`2b BM;ûMB2m`b pû`Bi #H2b +`û i2m`b /2 H K +?BM2 " 72m~ (2Mi 2 H2m b K BMb iQmb b2b /2; ûb bm++2bb M2K2MiX AH 2bi M im`2H- m `2bi2- [mömM2 M Bbb M+22ibm`iQmib2/ûp2HQTT2-b2T2` #2bQBM bö2M 7 Bi H2 THmb BKTû`B2mb2K2M J H; û H2b i p mt /2 iQmb ;2M 2b 2Mi 2T K +?BM2b " 72m- K H;`û Höûi i b iBb7 Bb M H2b 2bb Bb/ö KûHBQ`iBQMi2Miûbbm`2HH2 $T^2b[m2 m?b]/X$

GÖQM bQmp2Mi ;Biû H [m2biBQM /2 b M+2 KQi/2BH+2+? H2m` 2bi HBKBiû2-Qm b #Q`M2b~c bB H2b T2`72+iBQMM2K2Mib T "72m QMi mM i2`K2 bbB;M #H2-i2`K2 [n +?Qb2b 2KT +?2/2/ûT bb2`T `[m2H[m2 K Qm bB m +QMi` B`2 +2b T2`72+iBQMM2K2 /ömM2 2ti2MbBQM BM/û}MB2X GöQM mb 2i HöQM +?2`+?2 2M+Q`2 mDQm`/ö?mB-b

;2Mib T`û7û` #H2b "H p T2m`/ö2 m TQm T2m`KQi`B+2/m72m~cbBHöB`iKQbT?ú M2 T`ûb2Mi2` BiT b-"+2iû; \\-/2;\ M/b M Q m b T ` Q T Q b Q M b / 2 b Q m K 2 i i ` 2 B + B + 2 b [| $\hat{u} \sim \hat{u} + ?BX$ G2 T?ûMQK M2 /2 H T`Q/m+iBQM/m KQ +? H2m` Mö T b ûiû +QMbB/û`û bQmb mM ; û M û ` H X P M H ö + Q M b B / û ` û b 2 m H 2 K 2 M i /QMiH M im`22iH2KQ/2/ö +iBQM M2Hm /2 T`2M/`2 iQmi2 Höûi2M/m2 /QMi BH 2bi b T `2BHH2bK +?BM2bH2T?ûMQK M2b2i`(i`QM[mû-BM+QKTH2i~cBH/2pB2Mi/B{+B T`BM+BT2b 2i /öûim/B2` b2b HQBbX SQm`2MpBb;2`/MbiQmi2b;ûMû`HB H T Q/m + iBQM/m KQmp2K2MiT H +?+QM+2pQB`BM/ûT2M/KK2Mi/ö m+mM Kú

jXLQmb MQmb b2`pQMb B+B /2 Hö2tT`2bbBQM Te /ûbB;M2` Hö2z2i miBH2 [mömM KQi2m` 2bi + T #H2T2mi iQmDQm`b i`2 bbBKBHû "HöûHûp iBQM /ör? mi2m` c BH - +QKK2 QM b Bi- TQm` K2bm`2 H KmHiBTHBû T `H ? mi2m` /QMi BH 2bi +2Mbû ûH2

;2Mi T `iB+mHB2`~c BH 7 mi ûi #HB` /2b ` E THB+ #H2b- MQM b2mH2K2Mi 9mK KBb+?BM2b iQmi2 K +?BM2 " 72m BK ;BM #H2- [m2HH2 | bi M+2 KBb2 2M ¾mp`2 2i [m2HH2 [m2 bQBi IQM ;Bbb2 bm`2HH2X

G 2 b K + ? B M 2 b [m B M 2 ` 2 Ï Q B p 2 M i T b H 2 m ` H + ? H 2 m ` - + 2 H H 2 b [m B Q M i T Q m ` K Q i 2 m ` H

⁹XLQmb /BbiBM;mQMb B+B H K +?BM2 " p T2m` /2 H 2M; ûMû` H , +2HH2@+B T2mi 7 B`2 mb ;2 /ömM ;2M p T2m` /ö2 m Qm /2 iQmi mi`2- TQm` `û HBb2` H TmB H +? H2m` X

G T`Q/m+iBQM /m KQmp2K2Mi / Mb H p T2m` 2bi iQmDQm`b ++QKT; Mû2 /ömM H [m2HH2 MQmb /2pQMb }t2` Hö ii2MiBQM 2bi H2`ûi #HBbb2K2Mi /öû[mBHB#`2 / Mb /B`2 bQM T bb; 2 /ömM +Q`Tb QM H i2KTû KQBMb ûH2pû2 "mM mi`2 QM 2HH2 2bi THi@BH 2M 2z2i / Mb mM2 K +?BM2 "p T2m +iBpBiû~\G2 + HQ`B[m2-/ûp2HQTTû / M /2 H +QK#mbiBQM-i`p2`b2 H2b T `QBb /2

/QMM2` M Bbb M+2 " /2 H p T2m`-böv BM bQ`i2X *2HH2@+B-Hö2Mi` WM Mi p2+2H H2 + v H B M / ` 2 - Q M 2 H H 2 ` 2 K T H B i m M Q { + 2 / Mb H2 +QM/2Mb2m`- QM 2HH2 b2 HB[mí Hö2 m 7`QB/2 [mB böv `2M+QMi`2X Gö2 m bö2KT `2 /QM+ 2M /2 `MB2 ` ` û bm Hi i /m + T ` H +QK#mbiBQMX 1HH2 böû+? mz2 T p T2m`- +QKK2 bB 2HH2 2?i ûiû TH +û H2 7Qv2`X G p T2m` Mö2bi B+B [mömM K H2 + HQ`B[m2~c 2HH2 `2KTHBi H2 K K2 +? mz ;2 /2b # BMb T ` H p T2m`- "Hö2t+ H2 + b QM MQmb bQKK2b bQM KQmp2K2M GÖQM `2+QMM Wi7 +BH2K2Mi-/ Mb H2k p2MQMb /2 /û+`B`2- H2 `ûi #HBbb2K2Mi + HQ`B[m2-bQM T bb ;2 /ömM +Q`Tb THm " mM +Q`Tb THmb 7`QB/X G2 T`2KB2` /2 + #`?Hû /m 7Qv2`- H2 b2+QM/ 2bi Hö2 m /2 `ûi #HBbb2K2Mi/öû[mBHB#`2/m + HQ`B[bB + 2 M ö 2 bi + Q K T H i 2 K 2 M i - / m K Q B M b 2 M T `i- Hö B` #`? Hû- T` b pQB` `2KTHB bQ 2Mp2HQTTû H +? m/B `2- böû+? TT2 T ` H
mM2 i2KTû` im` 2 #B2M KQBM/` 2 [m2 +2HH2 [r
T ` Hö2z2i /2 H +QK#mbiBQM~ c 2i- /ö mi` 2
+QM/2Mb2m`- T` b pQB` HB[mû}û H p T2m`
K +?BM2 p2+ mM2 i2KTû` im` 2 bmTû` B2m` 2
p Bi TTQ`iû2X
G T`Q/m+iBQM /2 H TmBbb M+2 KQi` B+2

/ Mb H2b K +?BM2b "p T2m`- MQM "mM2 +QMI /m + HQ`KB [Bmb2 = bQM i` MbTQ`i /ömM +Q`Tb +? +Q`Tb 7`+QöB2/bi@ "@/B`2 "bQM `ûi #HBbb2K2M û [mBHB#`2 bmTTQbû`QKTm T` [m2H[m2 + mmM2 +iBQM +?BKB[m2-i2HH2 [m2 H +QK#m!mi`2X LQmb p2``QMb #B2Mi¬i [m2 +2 T`BM+E"iQmi2 K +?BM2 KBb2 2M KQmp2K2Mi T` H.ö T` b +2 T`BM+BT2-BH M2 bm{i T b-TQm

BH 7 mi 2M+Q`2 b2 T`Q+m`2`/m 7`QB/~c b Mb2` Bi BMmiBH2X 1i 2M 2z2i- bB HöQM M2`21bQB [m2/2b+Q`Tb mbbB+? m/b [m2 MQb 7T`pB2M/`Bi@QM"+QM/2Mb2`H p T2m`~\QM mM2 7QBb [mö2HH2 m`Bi T`Bb M Bbb MTb+`QB`2 [m2 HöQM T?i-BMbB [m2+2H b+2`i BM2b K6-+H3'B]M220b2i2`/ Mb Hö iKQbT?`2~KQbT?`2 M2 H `2+2p` Bi T bX AH M2 H `2Ï

b M+2 " H TmBbb M+2 KQi B+2-/2 T Q/mB 2

⁸X*2`i BM2b K +?BM2b " ? mi2 T`2bbBQM `2D2ii2Mi |
Hö iKQbT? `2- m HB2m /2 H +QM/2Mb2` , QM H2b 2k
K2Mi / Mb H2b HB2mt QM BH b2` Bi /B{+BH2 /2 b2 T`(
/ö2 m 7`QB/2 bm{b Mi TQm` QTû`2` H +QM/2Mb iBQM

+im2H /2b +?Qb2b- [m2 T `+2 [möBH `2KT /ömM p bi2 +QM/2Mb2m`- T `+2 [möBH b2

im`2 THmb 7`QB/2~, mi`2K2Mi BH 2M b2
Qm THmi¬i BH 2M b2` BeiX/ö p M+2 b im`û
S`iQmi QM BH 2tBbi2 mM2 /Bzû`2M+2
T`iQmi QM BH T2mi v pQB` ûi #HBbb2K
+ HQ`B[m2- BH T2mi v pQB` mbbB T`Q/I
KQi`B+2X G p T2m` /ö2 m 2bi mM KQv2M
TmBbb M+2- K Bb 2HH2 Mö2bi T b H2 b2m
H M im`2 T2mp2Mi i`2 2KTHQvûb " +2i m
bmb+2TiB#H2b/2 +? M;2K2Mib/2 pQHmK2/2 /BH i iBQMb bm++2bbBp2b T` /2b Hi2
2i /2 7`QB/~c iQmb bQMi + T #H2b /2 p B
+? M;2K2Mib/2 pQHmK2- +2`i BM2b `ûbE
p2HQTT2` BMbB H TmBbb M+2 KQi`B+2)

eXG ö 2 t B b i 2 M + 2 / 2 H ö 2 m " H ö û i i H B [m B / 2 - / K B b T m B b [m 2 b M b 2 H H 2 H 2 b K + ? B M 2 b " p T 2 m ` M 2 T Q r b m T T Q b 2 H ö 2 t B b i 2 M + 2 / ö m M 2 T ` 2 b b B Q M + T # H 2 b 2 p T Q ` B b 2 ` - T ` + Q M b û [m 2 M i / ö m M 2 T ` 2 b b B Q M H i 2 M b B Q M / 2 H p T 2 m ` - 2 m û; ` / " H i 2 K T û ` i m ` T ` 2 b b B Q M M ö û i B i T b 2 t 2 ` + û 2 T ` H ö B ` i K Q b T ? " H ö B M b i M i m M 2 [m M i B i û / 2 p T 2 m ` / ö 2 m b m { b b m ` 2 H H 2 @ K K 2 - 2 i B H 7 m / ` B i i Q m D Q m ` b b m ` K Q I ` 2 D 2 i 2 ` H p T 2 m ` / 2 b K + ? B M 2 b / M b H M Q m p 2 H H

⁺QKK2 BH M2 T ` Wi T b /Qmi2mt [mö2HH2 ` ;M2 iQmi2b H2b 2 mt/2 HöP+û M 2tBbi2` B2Mi2M p T2 2i BH M2 bö2M `2M+QMi`2` Bi m+mM2 TQ`iBQM " I

i2`M iBp2K2Mi +? mzû 2i `27`QB/B m;K2Mi2 pQHmK22iT2mip BM+`2/2bQ#bi+H2bTHmb QTTQbûb "b /BH i iBQMXIM ~mB/2 û B7Q K /2 +? M; 2K2Mib + QMbB/û` #H2b /2 pQHmK2 T /2 i2KTû` im`2~, böBH 2bi `2M72`Kû / Mb mM i2MbB#H2-i2HH2 [mömM +vHBM/\2 KmMB /öm /2b KQmp2K2Mib /ömM2; M/2 ûi2M/m2X G2 iQmb H2b +Q`Tb bmb+2TiB#H2b /2 T bb2` " I Hö H+QQH-/m K2`+m`2-/m bQm7`2-2i+X-T0 K K2 Q{+2 [m2 H p T2m`/ö2 mX*2HH2@+B-+? mzû2 2i `27`QB/B2- T`Q/mB` Bi/2 H TmB H K MB `2 /2b; x T2 `K M2Mib-+ö2bi@"@/B `2iQm`M2` " Höûi i HB[mB/2X G THmT `i /2 ûiû T`QTQbûb-THmbB2m`b K K2 QMi ûiû 2bb bQBiDmb[möB+B b Mb bm++ b `2K `[m #H2X LQmb pQMb7 BipQB`[m2-/ MbH2bK +?B TmBbb M+2 KQi`B+2 2bi/m2 " mM `ûi #HBbb2 K +?BM2b "p T2m`- K Bb mbbB TQm`iQmi2 + ö 2 b i @ " @ / B ` 2 T Q m ` i Q m i 2 K + ? B M 2 / Q M i H 2 KQi2m`X G +? H2m` M2 T2mi ûpB/2KK2Mi i /2 KQmp2K2Mi [mö2M p2`im /2b +? M;2K2Mib /2 7Q`K2 [mö2HH2 7 Bi bm#B` mt +Q`Tb~c + M2 bQMi T b /mb " mM2 +QMbi M+2 /2 i2KTû #B2M " /2b Hi2`M iBp2b /2 +? H2m` 2i /2 7`C û+? mz2` mM2 bm#bi M+2 [m2H+QM[m2-BH7

``2 Kûi HHB[m2- T ` 2t2KTH2- Hi2`M iBp2
2i `27`QB/B2- m;K2Mi2 2i /BKBMm2 /2 HQM
KQmpQB` /2b +Q`Tb }tûb " b2b 2ti`ûKBiûbX I

+? m/[mö2HH2~cTQm`H `27`QB/B`-BH7
PM T`2M/ Mû+2bb B`2K2Mi/m + HQ`B[m2
+Q`Tb TQm` H2 i` MbK2ii`2 m b2+QM/ T
bm#bi M+2 BMi2`Kû/B B`2X *ö2bi H" `ûi
i` p BHH2` "`ûi #HB`- Höû[mBHB#`2/m +
 AH 2bi M im`2H/2 b2 7 B`2 B+B +2ii2 [m
`B2mb2 2i BKTQ`i Mi2~, G TmBbb M+2 KG

2bi@2HH2BKKm #H22M [m MiBiû-Qmp`/QMiQM7Bimb;2TQm`H`û HBb2`p2+
Kû/BB`2-+?QBbB2+QKK2bmD2i/ö+iBQ
AH2bi+HB`[m2+2ii2[m2biBQMM2TTQm`mM2[m MiBiû/2+dHQ`B\pao(2)/2QMMM2'\fizKTû`im`2bûi Miû; H2K2Mi/QMM\fizKTû`im`2bûi Miû; H2K2Mi/QMM\fizXG2t2KTH2-/ömM+Q`Tb-KBMi2Mm"Hi2Zi/ömM mi`2+Q`Tb"-KBMi2Mm"Hi2KT\fizKM/2[m2HH2[m MiBiû/2TmBbbM+2KT`H2i`MbTQ`i/ömM2TQ`iBQM/QMMû2Zt2KTH2+2HH2[mB2biMû+2bbB`2TQm`/2;H+2V/mT`2KB2`/2+2b+Q`Tb mb2+GbB+2ii2[m MiBiû/2TmBbbM+2KQi`B+2HBKBiû2-bB2HH2p`B2p2+Hbm#bi`û HBb2`-bBHpT2m`/ö2mQz`2"+2iû;

dXLQmb Dm;2QMb BMmiBH2 / ö2tTHB[m2`B+B+2[+ HQ`B[m2Qm[m MiBiû/2+? H2m`U+`MQmb2KT

H2b /2mt 2tT`2bbBQMbV-MB /2 /û+`B`2 +QKK2Mi Q T`H2 + HQ`BK i`2X LQmb Mö2tTHB[m2`QMb T b [m2 +? H2m` H i2Mi2-/2;`û/2i2KTû` im`2-+? H2m H2 H2+i2m`/QBi i`2 7 KBHB `Bbû p2+ +2b 2tT`2 i` Biûb ûHûK2Mi B`2b/2 T?vbB[m2 Qm/2 +?BKB2X

/ö p Mi ;2 [m2 H p T2m`/ö H+QQH-/2 K2`+m T2`K M2Mi Qm [m2iQmi2 mi`2 bm#bi M+2X LQmb 2bb B2`QMb /2 `ûbQm/`2 +2b [m2biE mb ; 2 / 2 b M Q i B Q M b T ` û + û / 2 K K 2 M i û i # H B 2 b X GöQM `2K `[mû THmb ? mi +2 7 Bi ûpB/2 K K2- Qm [mB/m KQBMb/2pB2Mi b2MbB#H $\hat{u} \sim \hat{u} + ?Bi \text{ mt} + ?M; 2K2Mib / 2pQHmK2Q++b$ +? H2m5~`iQmi QM BH 2tBbi2 mM2 /Bzû`2M+; im`2-BH T2mi v pQB` T`Q/m+iBQXM /2 TmE û+BT`Q[m2K2MiT[']`iQmiQM HöQM T2mi+QN TmBbb M+2- BH 2bi TQbbB#H2 /2 7 B`2 M W /2 i2KTû` im`2- BH 2bi TQbbB#H2 /öQ++ bBQ /öû[mBHB#`2 / Mb H2 + HQ`B[m2X G T2`+mb /2b + Q`Tb M2 bQMi@BHb T b 2M 2z2i /2b K H2m`i2KTû`im`2-/2 H 7 B`2 ``Bp2`bTQM /2; `û THmb ? mi [m2 +2HmB /2b +Q `Tb 2MpB ` +QMbû[m2Mi /2 T`Q/mB`2 mM2 `mTim`2 /öû[+ HQ`B[m2-H"QM 2tBbi Bi mT ` p Mi +2i û[mM 7 Bi/ö2tTû`B2M+2 [m2 H i2KTû` im`2/2b böûH p2 T ` H +QKT`2bbBQM 2i bö # Bbb2 T oQBH" mM KQv2M +2`i BM /2 +? M;2` H i2K +Q`Tb 2i/2 `QKT`2 Höû[mBHB#`2/m + HQ`B[[möQM H2pQm/\ p2+ H K K2bm#bi M+2X G 2KTHQvû2 / öm M2 K MB `2 BMp2 `b2 /2 +2HH2 / Mb H2b K +?BM2b " p T2m`- T2mi mbbB +QKK2 mM KQv2M /2 `QKT`2 Höû[mBHB#`2 /m bö2M + Q M p B M + `2 - B H b m { i / 2 `û ~ û + ? B ` i i 2 M MB `2/QMi b2/ûp2HQTT2 H TmBbb M+2 KQi

/2 b +? H2m`bm`H p T2m`/ö2 mX *QM+2p(

2i " 2Mi`2i2Mmb +? +mM " mM2 i2KTû` i +2HH2 /2 ûi Mi THmb ûH2pû2 [m2 +2HH2 +Q`Tb- mt[m2Hb QM T2mi /QMM2` Qm 2M

```
b Mb 7 B`2 p `B2` H2m` i2KTû` im`2-72`C
T`2KB2`7Qv2`2iH2b2+QM/`û7`B;û` MiX
 aB HöQM p2mi/QMM2` M Bbb M+2 "/2 H
T ` H2 i` MbTQ`i /ömM2 +2`i BM2 [m MiB
+Q`Tb m +Q`Tb "- H\ddot{o}QMTQm``T`Q+û/
bmBp Mi2~
R \in KT^mMi2^m + HQ^B[m2 m + Q^Tb T0]
 /2 H p T2m`- + ö2bi@"@/B`2 7 B`2 `2K]
 7QM+iBQMb /m 7Qv2`- Qm THmi¬i /m
 H +? m/B `2- / Mb H2b K +?BM2b Q`/I
 bmTTQb2`QMb B+B [m2 H p T2m` T`2N
 i2KTû` im`2 K K2/m +Q`Tb X
kêG p T2m` v Miûiû`2Ïm2/ Mb m M2 + T +
 i2HH2[mömM+vHBM/\2KmMB/ömMTBb
 HmK2/2+2ii2+ T +Biû 2i T `+QMbû[m2
 H p T2m'X BMbB \ \ \u00fc\u00e4\u00e42 b + 2 N
 \hat{u}H biB[m2b^{\sim}, /K2iiQMb[m2H^{\sim}]\hat{u}7 + i
```

Dmb[mö m TQBMi QM H i2KTû`im`2/2g

jê*QM/2Mb2` H p T2m` 2M H K2ii Mi 2M +
Q`Tb "- 2i 2M 2t2`Ï Mi 2M K K2 i2KTb |
T`2bbBQM +QMbi Mi2- Dmb[mö" +2 [mö2
HB[mû}û2X G2 +Q`Tb " `2KTHBi B+B H2 `
iBQM / Mb H2b K +?BM2b Q`/BM B`2b-

+2HH2/m+Q`Tb"X

+? M; 2` HmB@K K2 /2X2KTû` im`2
G2b QTû` iBQMb [m2 MQmb p2MQMb /2 /û+`
i`2 7 Bi2b / Mb mM b2Mb 2i / Mb mM Q`/`2 E
Mö2KT +? Bi /2 7Q`K2` /2 H p T2m` p2+ H2
+Q`Tb "- 2i " H i2KTû` im`2 /2 +2 +Q`Tb- /2 H
/2 K MB `2 " HmB 7 B`2 +[mû`B` H i2KTû` i
- 2M}M /2 H +QM/2Mb2` T ` bQM +QMi +i p

 $[m\ddot{o}BH + QM/2Mb2H p T2m]b Mbb2K H2$

³XPM böûiQMM2` T2mi@ i`2 B+B [m2 H2 +Q`Tb "b2 i`(i2KTû` im`2 [m2 H p T2m` TmBbb2 H +QM/2Mb2`~, Mö2bi T b`B;Qm`2mb2K2Mi TQbbB#H2~c K Bb H THm i2KTû` im`2 /ûi2`KBM2` H +QM/2Mb iBQM-+2 [mB bi H Dmbi2bb2 /2 MQi`2` BbQMM2K2MiX *ö2bi BMbB | /Bzû`2MiB2H-BH bm{i [m2 HöQM TmBbb2 +QM+2pQB`BM/û}MBK2Mi`û/m+iB#H2b T`` TTQ`i mt [m MiBiûb H2b û[m iBQMb-TQm` +[mû`B`H +2`iBim/2/m`ûbmHG2 +Q`Tb "+QM/2Mb2 H p T2m` b Mb +? M;2` HmBTû` im`2~, +2H `ûbmHi2 /2 MQi`2 bmTTQbBiBQMX LQ+2+Q`Tb ûi Bi K BMi2Mm "mM2 i2KTû` im`2 +QMbi MiH2 + HQ`B[m2 "K2bm`2 [m2 H p T2m` H2 HmB 7Qm`Mi`Qmp2 H2 Kûi H/m +QM/2Mb2m` HQ`b[m2 " D H in the control of the c

 $HB[m\hat{u}7 + iBQM + QKTH i2X]$

+Q`Tb-2i+2H 2M +QMiBMm Mi H +QKT`

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H [m MiBiû / 2 TmBbb M+2 KQi B+2 T Q/m
+ b b 2 ` û; H 2 " + 2 H H 2 [m B m ` û i û / û T 2 M b
2i H [m MiBiû / 2 + HQ`B[m 2 T bbû 2 - / Mb
+Q`Tb m +Q`Tb "b2` û; H2 "H [m MiB
/ Mb H2 b2+QM/- /m +Q`Tb " m +Q`Tb -
TQm`` Bi7 B`2 mM MQK#`2 BM/û}MB/öQT
/2 + 2 ; 2 M ` 2 b M b [ m ö B H v 2 ? i 2 M b Q K K 2 M B
T^Q/mBi2 - MB + HQ^B/m2 T bbû/omM + Q^
  P`- böBH 2tBbi Bi /2b KQv2Mb /ö2KTH
T`\hat{u}7\hat{u} #H2b " +2mt /QMi MQmb pQMb 7
/B`2 böBH ûi Bi TQbbB#H2- T ` [m2H[m2
/2 7 B 2 T Q / m B 2 m + H Q B [ m 2 m M 2 [ m
KQi`B+2 THmb; M/2 [m2 MQmb M2 Hö p
T`2KB `2 bû`B2 /öQTû` iBQMb- BH bm{`
TQ`iBQM /2 +2ii2 TmBbb M+2 TQm` 7 B`:
Kûi?Q/2 [mB pB2Mi /ö i`2 BM/B[mû2- H2 +
  m + Q`Tb - /m `û7`B;û` Mi m 7Qv2`- T0
+?Qb2b / Mb H2m` ûi i T`BKBiB7 2i b2 K2ii`
/2 `2+QKK2M+2` mM2 QTû` iBQM 2MiB `2k
T`2KB `2 2i BMbB /2 bmBi2~, +2 b2` Bi h
```

H 2 K Q m p 2 K 2 M i T 2 `T û i m 2 H - K B b m M 2 + `û i B 7 Q ` + 2 K Q i `B + 2 b M b + Q M b Q K K i B Q M M B / 2 [m 2 H [m 2 m i `2 ; 2 M i [m 2 + 2 b Q B i X | M 2 b 2 K # F 2 b i i Q m i @ " @ 7 B i + Q M i `B `2 m t B / û 2 b `2 Ï m 2 F m t H Q B b / 2 H K û + M B [m 2 2 i / 2 H b B M 2 T ? 2 b i B M / K B X F B M # H Q 2 B i / Q M + + Q H M 2 + K H F B K N f K 2

NXPM Q#D2+i2` T2mi@ i`2 B+B [m2 H2 KQmp2K2Mi KQMi`û BKTQbbB#H2 T ` H2b b2mH2b +iBQMb Kû+ M i`2 T b HQ`b[möQM 2KTHQB2 HöBM~m2M+2 bQBi /2 HöûH2+i`B+Biû~c K Bb T2mi@QM +QM+2pQB` H2b T? 2i /2 HöûH2+i`B+Biû +QKK2 /mb " mi`2 +?Qb2 [mö" / [m2H+QM[m2b /2 +Q`Tb-2i +QKK2 i2Hb M2 /QBp2Mi@ mt HQBb; ûMû` H2b/2 H Kû+ MB[m2~\L720bbB2@QMT i2`BQmB2 iQmi2b H2b i2Mi iBp2b 7 Bi2b TQm` T`Q/mB` T2`Tûim2HT`[m2H[m2KQv2M[m2+2bQBiQMiûiûBM HöQM Mö2bi D K Bb T `p2Mm " T `Q/mB `2 mM KQmp2K T2`Tûim2H-+ö2bi@"@/B`2 mM KQmp2K2Mi[mB b2 +QI Hiû` iBQM / Mb H2b +Q`Tb KBb 2M %mp`2 TQm` H2 `û GÖQM `2; `/û [m2H[m27QBb Hö TT `2BH ûH2+i`QF oQHi V +QKK2 + T #H2 /2 T`Q/mB`2 H2 KQmp2K2Mi T +?2`+?û " `û HBb2` +2ii2 B/û2 2M +QMbi`mBb Mi / T`ûi2M/m2b BM Hiû` #H2bX J Bb-[mQB [m2 HöQM Bi iQmDQm`b ûT`Qmpû /2b /ûiû`BQ` iBQMb b2MbB#H2b ûiû bQmi2Mm2 T2M/ Mi mM +2`i BM i2KTb p2+ [m2H[m Gö ++2TiBQM; û Mû` H2 2 i T?BKQ bnQo 72 K 123 Mmi 2T 222 k@ K Q i Tûim/20HBi +QKT`2M/`2- MQM T b b2mH2K2Mi mM KQmp iB#H2 /2 b2 T`QHQM;2` BM/û}MBK2Mi T` b mM2 T`2 `2Ïm2- K Bb Hö +iBQM /ömM TT `2BH- /ömM bb2K# + T #H2/2 + `û2 ` H TmBbb M+2 KQi `B+2 2M [m MiBiû /2 iB`2` bm++2bbBp2K2Mi/m `2TQb iQmb H2b +Q`Tb /2 i`Qmp B2MiTHQM; ûb-/2/ûi`mB`22M 2mt H2T`BM+BT2 2M}M /2 TmBb2` 2M HmB@K K2 H2b 7Q`+2b Mû+2bb /2 TmBbb M+2 KQi^B+2 0bmHi Mi /2 $H\ddot{o}2$ 2 bi mbbB H2 K tBKmK /2 TmBbb M+2 KQi^D+2 Em2H[m2 Em2 Em2

#B2Mi¬i mM2 b2+QM/2 /ûKQMbi` iBQM TH i?ûQ` K2X *2HH2@+B M2/QBi i`2+QMbB T2` Im X UoX T: X kNVX PM 2bi 2M / `QBi / 2 M Q m b 7 B ` 2 - m b m D 2 [mBpB2Mi/ö i`2 ûMQM+û2-H [m2biBQM b H2 b2Mb/Kn KBQKim'K" [m2HbB; M2`2+QMMV][m2 +2 K tBKmK 2bi ii2BMi~\"[m2H bB;N i@QM bB H p T2m`2bi2KTHQvû2 H2 TH TQbbB#H2" H T`Q/m+iBQM/2 H TmBbb I SmBb[m2 iQmi `ûi #HBbb2K2Mi /öû[mBl $B[m2 T2mi i^2 H + mb2/2 H T^Q/m+iBQ]$ KQi`B+2-iQmi `ûi #HBbb2K2Mi /öû[mBHB $T^Q/m+iBQM/2+2ii2TmBbbM+2/2p$ i`2 m M 2 pû `Bi # H 2 T 2 `i 2 ~ , Q ` - T Q m ` T 2 m [m QM bö T2`+2p` [m2 iQmi +? M;2K2Mi/2 i Mö2bi T b /? " mM +? M;2K2Mi /2 pQHmK; T2mi i`2 [mömM `ûi #HBbb2K2Mi BMmiB

 $H2 + HQ^{y}XBQm2+QM/BiBQMMû+2bbB^{2}/m$

Höm MBp2`b iQmi 2MiB2`- TQm` T`QHQM;2`- TQm`bQM KQmp2K2MiX h2HH2 b2` Bi mM2 pû`Bi #H2 -KQi`B+2X aB 2HH2 ûi Bi TQbbB#H2- BH b2` Bi BH2b +Qm` Mb /ö2 m 2i /ö B`- / Mb H2b +QK#mbiBKQi`B+2~c MQmb 2M m`BQMb "MQi`2/BbTQbBiBQQM MQmb TQm``BQMb TmBb2` "pQHQMiûX

+? M;2K2Mi /2 pQHmK2 Qm " mM2 +iBQM +? [m2 T`QpBbQB`2K2Mi MQmb bmTTQbQMb M2 B+BV 2bi Mû+2bb B`2K2Mi /? m T bb ;2 /B`2 /ömM +Q`Tb THmb Qm KQBMb û+? mzû " mM *2 T bb ;2 HB2m T`BM+BT H2K2Mi m +QMi i2KTû` im`2b /Bp2`b2b", mbbB mM T `2BH i`2 ûpBiû mi Mi [m2 TQbbB#H2X AH M2 T2n+QKTH i2K2Mi-b Mb /Qmi2"c K Bb BH 7 mi /m bQ`i2 [m2 H2b +Q`Tb KBb 2M +QMi +i H2b mM/Bz `2Mi T2m 2Mi`2 2mt /2 i2KTû` im`2X

GQ`b[m2 MQmb pQMb bmTTQbû iQmi " Hö? /ûKQMbi` iBQM- H2 + HQ`B[m2/m +Q`Tb 2K/2 H p T2m`- +2ii2 p T2m`ûi Bi +2Mbû2 T`2M" H i2KTû` im`2 K K2/m +Q`Tb ~, BMbB H

^{+?}BKB[m2 [mB b2 T bb2 / Mb H2 7Qv2` 2bi mM2 +iBQl T`ûHBKBM B`2-mM2 QTû` iBQM /2biBMû2-MQM "T`Q /2 H TmBbb M+2 KQi`B+2- K Bb "`QKT`2 Höû[mBHB "T`Q/mB`2 mM2 /Bzû`2M+2 /2 i2KTû` im`2 [mB /QBi : M Bbb M+2 m KQmp2K2MiX

Mö p Bi HB2m [mö2Mi`2/2b +Q`Tb/2i2KTe+? M;2K2Mi/2i2KTû` im`2 ``Bpû 2MbmBiûi Bi/?" H /BH i iBQM-T ` +QMbû[m2Mi/2 pQHmK2~c 2M}M H +QM/2Mb iBQM bö+QMi+i/2+Q`Tb/2i2KTû` im`2b/Bp2`b22M 2t2`Ï Mi mM2 T`2bbBQM +QMbi Mi2 bm+QMi +i p2+ H2 +Q`Tb"/2 K K2i2KTû` im+QM/BiBQMb/m K tBKmK b2 i`Qmp B2Mi/epû`Biû H2b+?Qb2b M2 T2mp2Mi T b b2 T b+QKK2 MQmb Hö pQMb bmTTQbûX SQm`/

/m + HQ`B[m2/ömM +Q`Tb "Hö mi`2-BH7 2t+ b /2 i2KTû` im`2~c K Bb +2i 2t+ b T2m mbbB T2iBi [möQM H2 pQm/`~c QM T2mi MmH 2M i?ûQ`B2- b Mb [m2 TQm` +2H T2\/2Mi\B2M/2H2m\2t +iBim/2X GöQM T2mi 7 B`2 " MQi`2 /ûKQMbi` iBC THmb ` û 2 H H 2 - [m 2 p Q B + B ~ , GQ`b[m2 HöQM 2KT`mMi2 /m + HQ`B[m2 /QMM2` M Bbb M+2 " /2 H p T2m` - 2i [m2 2MbmBi2 + QM/2Mbû2 T bQM + QMi + i p22KTHQvû2 " H 7Q`K2` 2i [m2 HöQM bm TT i2KTû` im`2 /m +Q`Tb b2 i`Qmp2- " H }M " H i2KTû` im`2/m +Q`Tb "~c 2HH2 bö2bi p2mi `2+QKK2M+2` mM2 QTû` iBQM b2K#F bB HöQM p2mi/ûp2HQTT2`mM2 MQmp2HH KQi`B+2 p2+ H2 K K2 BMbi`mK2Mi- p2+ BH 7 mi/ö #Q`/`ûi #HB` H2b +?Qb2b / Mb BH 7 mi 2M/2 "Hö2 m H2/2; û/2 i2KTû /ö #Q`/X *2H T2mi b2 7 B`2 b Mb /Qmi2 BKKû/B i2K2Mi 2M +QMi +i p2+ H2 +Q`Tb ~ HQ`b +QMi +i 2Mi`2 /2b +Q`Tb /2 i2KTû` im` T2`i2 /2 TmBbb M^{2} 2, M^{2} 2, M^{2} 3 M^{2} 2 M^{2} 4 Bi BKTQbb /ö2tû+mi2` HöQTû` iBQM BMp2`b2- +ö2bi@"(M2` m+Q`Tb H2+ HQ`B[m22KTHQvû" ûH2p/m HB[mB/2X

*2ii2 /B{+mHiû T2mi i`2 H2pû2 2M bmTTQ
7û`2M+2 /2 i2KTû` im`2 2Mi`2 H2 +Q`Tb 2i
BM}MBK2Mi T2iBi2~c H [m MiBiû /2 +? H2m`
`2TQ`i2` H2 HB[mB/2 " b i2KTû` im`2 T`2KB
BM}MBK2Mi T2iBi2 2i Mû;HB;2 #H2 `2H iBp2
2bi Mû+2bb B`2 TQm` /QMM2` M Bbb M+2 " H
iQmDQm`b}MB2X

G T`QTQbBiBQM-b2 i`Qmp Mi /ö BHH2m`l H2 + b QM H /Bzû`2M+2 2Mi`2 H2b i2KTû` i +Q`Tb 2bi BM}MBK2Mi T2iBi2-b2` 7 +BH2K2

; û M û ` H X 1 M 2 z 2 i - b ö B H b ö ; B b b B i / 2 7 B K Q i ` B + 2 T ` H 2 i ` M b T Q ` i / m + H Q ` B [m 2 + Q ` T b w - H i 2 K T û ` i m ` 2 / 2 + 2 / 2 ` M B 2 ` + / B z û ` 2 M i 2 / 2 + 2 H H 2 / m T ` 2 K B 2 ` - Q M B K ; / 2 + Q ` T b " - * - . - 2 i + X - / 2 i 2 K T û ` i m ` 2 b B 2 M i ` 2 + 2 H H 2 b / 2 b + Q ` T b - w - 2 i + ? Q B b B [m 2 H 2 b / B z û ` 2 M + 2 b / 2 " " - / 2 " " * - 2 i + X - B M } M B K 2 M i T 2 i B i 2 b X G 2 + H Q ` B [m 2 û K M

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" w [mö T` b pQB` T bbû T ` H2b +Q`Tb "
T b pQB /\hat{u}p2HQTT\hat{u} / Mb +? +mM /2 b
K tBKmK /2 TmBbb M+2 KQi`B+2X G2b QT
b2` B2Mi B+B iQmi2b TQbbB#H2b- 2i H2`
ky/2pB2M/`Bi`B;Qm`2mb2K2Mi TTHB+
  .ö T` b H2b MQiBQMb ûi #HB2b Dmb[me
+QKT `2` p2+ bb2x/2 Dmbi2bb2 H TmB
H +? H2m` " +2HH2 / \( \tilde{o} \text{m} \text{M} 2 + ? \text{mi2} / \( \tilde{o} 2 \text{ m} \) \( \text{m} \)
mM K tBKmK [m2 HöQM M2 T2mi T b /ûT k
bQBi/omM2T `iH K +?BM22KTHQvû2"`
Hö2 m-2i[m2HH2[m2bQBi/2Hö mi`2H
" `2+2pQB` Hö +iBQM /2 H +? H2m`X G
/ömM2 + ? m i 2 / ö 2 m / û T 2 M / / 2 b ? m i 2 m ` 2
/m HB[mB/2~c H TmBbb M+2 KQi`B+2 /2
mbbB/2 H [m MiBiû/2 + HQ`B[m2 2KTHC
TQm`` Bi MQKK2`- /2 +2 [m2 MQmb TT2
H ? mi2m\ /2 6^{k} + 10 m2 b2 @ "@/B\ 2 /2 H /Bz (
```

i`2 T b iQmi2 H + H `iû /ûbB` #H2X

+ HQ`B[m2X . Mb H +?mi2 / ö2 m- H TmBbb
`B;Qm`2mb2K2Mi T`QTQ`iBQMM2HH2 " H /B
2Mi`2 H2 `ûb2`pQB` bmTû`B2m` 2i H2 `ûb2`p
H +?mi2 /m + HQ`B[m2- H TmBbb M+2 KQ
b Mb /Qmi2 p2+ H /Bzû`2M+2 /2 i2KTû` im
+Q`Tb +? m/ 2i H2 +Q`Tb 7`QB/~c K Bb MQmb
2bi T`QTQ`iBQMM2HH2 " +2ii2 /Bzû`2M+2X L
2t2KTH2- bB H +?mi2 /m + HQ`B[m2 /2 Ryyê"
Qm KQBMb /2 TmBbb M+2 KQi`B+2 [m2 H +?
+ HQ`B[m2 /2 8yê " yêX *ö2bi mM2 [m2biBQMT`QTQbQMb /ö2t KBM2` THmb i `/X

i2KTû` im`2 /2b +Q`Tb 2Mi`2 H2b[m2Hb b2 7

LQmb HHQMb/QMM2`B+B mM2 b2+QM/2/H T`QTQbBiBQM 7QM/ K2Mi H2 ûMQM+û2 T+2ii2 T`QTQbBiBQM bQmb mM2 7Q`K2 THmbM2 Hö pQMb 7 Bi +B@/2bbmbX

GQ`b[mömM ~mB/2; x2mt 2bi ` TB/2K2Mi + i2KTû ` im ` $2 b\ddot{o}uH$ p2 c $2HH2 b\ddot{o}$ # Bbb2 m + 2bi ` TB/2K2Mi /BH iuX * $\ddot{o}2bi$ H " mM /2b 7 E + QMbi iub T ` $H\ddot{o}2tTu$ ` B2M+2 , MQmb H2 T ` 2MQi `

 $RjXG\,2b$ 7 Bib /ö $2tT\,\hat{u}\,^*B\,2M\,+\,2$ [mB T $^*Qmp\,2Mi$ H2 KB2mt Fi2KT $\hat{u}\,^*im\,^*2$ /2b ; x T * H $\,+\,QKT\,^*2bbBQM$ Qm H $\,/BH$ ibmBp Mib * ,

R & G ö # B b b 2 K 2 M i / m i ? 2 ` K Q K i ` 2 T H + û b Q m b H 2 ` û K + ? B M 2 T M 2 m K i B [m 2 Q M H ö Q M 7 B i H 2 p B / 2 X * 2 i i ` b @ b 2 M b B # H 2 b m ` H 2 i ? 2 ` K Q K i ` 2 / 2 " ` 2; m 2 i ~ , B | / 2 H ~ / 2 9 y ~ 8 y / 2; ` û b X G 2 M m ; 2 [m B b 2 7 Q ` K 2 / M b +

+ mbû2 T ` H2 `27`QB/Bbb2K2Mi /2 Hö B`X
kêGöBM~ KK iBQM /2 Hö K /Qm / Mb H2b #`B[m2ib
[mB bQMi- +QKK2 QM b Bi- /2 T2iBib +Q`Tb /2 T
ûT`Qmp2` "Hö B` mM2 +QKT`2bbBQM` TB/2~c
jêGö # Bbb2K2Mi/mi?2`KQK i`2 TH +û / Mb mM2 pQB` +QKT`BKû /2 Hö B`- QM H2 H Bbb2 û+?

/ömM`Q#BM2i~c

b2K#H2/2pQB` i`2 i`B#mû "H +QM/2Mb iBQM

9 êG 2 b ` û b m Hi i b / ö 2 t T û ` B 2 M + 2 b m ` H p B i 2 b b 2 / m

```
7 Bi pQB` [m2- TQm` bQmK2ii`2 2t +i2K2Mi +
  i?ûQ`B2 2i m + H+mH-BH 7 HH Bi /K2ii`2 Hö
  T ` mM2 +QKT`2bbBQM bm#Bi2X
G2 b2mH 7 Bi [mB TmBbb2 i`2 QTTQbû " +2mt@+E
JJX: v@Gmbb + 2i q2Hi2`-/ûM/NBiH22/bM/2 H12/bbB[m2
/2 + ? B XK B N2 2 T 2 i B i 2 Q m p 2 ` i m ` 2 v M i û i û 7 B i 2 " m M
/ö B` +QKT`BKû- 2i H #QmH2 /ömM i?2`KQK i`2
m + Q m ` Mi / ö B ` [ m B b Q ` i B i T ` + 2 i i 2 Q m p 2 ` i m ` 2 -
/ö # Bbb2K2Mi b2MbB#H2 / Mb H2 /2; `û /2 i2KTû `
i?2`KQK i`2X
  GöQM T2mi/QMM2` "+2 7 Bi/2mt 2tTHB+ iBQM
/2 Hö B` +QMi`2 H2b T `QBb /2 HöQmp2`im`2 T `
/ûp2HQTT2 T2mi@ i`2 /2 H +? H2m` 2M [m MiBiû |
pB2MiiQm+?2`BKKû/B i2K2MiH #QmH2/mi?2`KQ
i`2- T ` b Q M +? Q + + Q M i `2 + 2 i i 2 # Q m H 2 - Q m T H m i -
[möBH 2bi 7Q`+û /2 T`2M/`2 "b `2M+QMi`2- mM2
[möBH p Bi / Mb H2 `û+BTB2Mi- "T2m T` b +QKK
böûH p2-+QMi`2 mM Q#bi +H2 }t2- m@/2bbmb/2
  G2 +? M;2K2Mi /2 i2KTû` im`2 Q++ bBQMû / MI
+? M;2K2Mi/2pQHmK2T2mi i`2`2; \'\u00fc u+QKK2H\u00f6n
BKTQ`i Mb/2 H T?vbB[m2-" + mb2/2b MQK#`2mb2
2Mi` WM2-2i2M K K2 i2KTb +QKK2 HömM /2b THm
2i " K2bm`2` T ` /2b 2tTû`B2M+2b /û+BbBp2bX AH
```

THmbB2m\b+B\+QMbi M+2b/2b MQK HB2b bBM;

aB-HQ`b[mömM; x bö2bi ûH2pû /2 i2KTû` /2 H +QKT`2bbBQM- HöQM p2mi H2 ` K2M2 im`2 T`BKBiBp2 b Mb 7 B`2 bm#B` "bQM pQH +? M; 2K2Mib-BH7 mi HmB 2MH2p2`/m + HQ TQm`` Bi mbbB i`2 2MH2pû " K2bm`2 [m2 F bö2tû+mi2- /2 K MB `2 " +2 [m2 H i2KTû` i `2bi•i +QMbi Mi2X .2 K K2-bB H2; x 2bi ` `û' ûpBi2` [möBH M2 # Bbb2 /2 i2KTû` im`2 2M mM2 +2`i BM2 [m MiBiû /2 + HQ`B[m2X LQm + HQ`B[m22KTHQvû/Mb+2bQ++ bBQMbQN +? M;2K2Mi/2i2KTû`im`2-+ HQ`B[m2/? m /2 pQHmK2X *2ii2 /ûMQKBM iBQM MöBM/B[m `B[m2 TT `iB2MM2 m pQHmK2-BH M2 HmB [möBH Mö TT `iB2Mi "H T`2bbBQM-2iTQm`` #B2M TT2Hû + HQ`B[m2/? m +? M:2K2Mi/2 B; MQ`QMb [m2HH2b HQBb BH bmBi `2H iBp2k pQHmK2~, BH 2bi TQbbB#H2 [m2 b [m MiBiû H M im²/m; x-bQBi p2+b /2MbBiû-bQBi `im`2X Gö2tTû`B2M+2 M2 MQmb `B2M TT`

Lö2bi@+2 T b m `27`QB/Bbb2K2Mi /2 Hö B` T ` H 7 mi ii`B#m2` H2 7`QB/ /2b `û;BQMb bmTû`B2m`2b /G2b ` BbQMb /QMMû2b Dmb[möB+B TQm` 2tTHB[m2` 7 Bi BMbm{b Mi2b~, QM /Bi [m2 Hö B` /2b `û;BQMb T2m /2 +? H2m` `û~û+?B2 T ` H i2``2-2i` vQMM Mi H 2bT +2b +ûH2bi2b- /2p Bi T2`/`2 /m + HQ`B[m2-2i [m2/2 bQM`27`QB/Bbb2K2Mi~c K Bb +2ii2 2tTHB+ iBQM bHöQM`2K`[m2 [mö~û; H2? mi2m` H2 7`QB/`;M2 mip2+ THmb /öBMi2MbBiû bm` H2b TH BM2b ûH2pû2b [KQMi; M2b-Qm [m2/ Mb H2b T `iB2b/ö iKQbT?`2 ûH

2HH2MQmb TT`Bbb2mH2K2Mi[m2+2+
2M [m MiBiû THmbQm KQBMb;` M/2 T ` H
~mB/2bûH biB[m2bX
*2ii2 MQiBQM T`ûHBKBM B`2ûi Mi TQb
~mB/2ûH biB[m2-/2 Hö B` iKQbT?û`B[m
72`Kû/ MbmMp Bbb2 #h++/);HXBRM-/KBn[Mh 12/ön
/B T?`;K2 KQ#BH2+Qînc To Q Bi2QMM 2M Qmi`;

/2mt +Q`Tb - "- 2Mi`2i2Mmb +? +mM " ml' +QMbi Mi2- +2HH2 /2 ûi Mi THmb ûH2pû };m`QMb@MQmb K BMi2M Mi H bmBi2 /2b i`2 /û+`Bi2b",

bmTTQb2`QMbi` MbK2ii`2 7 +BH2K2Mi b2 i`Qmp2 T ` +2 +QMi +i " H i2KTû` ir +Q`Tb +72bi H TQbBiBQM +im2HH2/m ' kêG2 TBbiQM böûH p2 ;` /m2HH2K2Mi- 2i TQbB2BXQQM2 +QMi +i iQmDQm`b HB2m 2

 $R \in QMi + i/m + Q`Tb p2 + H ö B``2M72`K û #+/Qm p2 + H T `QB/2 + 2ii2 + T + Biû-$

2 i H ö B`- [m B b 2 i` Q m p 2 B M b B K B M i 2 M + Q M b i M i 2 T 2 M / M i H ` ` û 7 + i B Q M X G 2 H 2 + H Q`B [m 2 M û + 2 b b B` 2 T Q m` K B M i 2 i 2 K T û` i m` 2 X

jêG2 +Q`Tb 2bi ûHQB;Mû-2i Hö B` M2 b +QMi +i p2+ m+mM +Q`Tb + T #H2/2 H HQ`B[m2~cH2TBbiQM+QMiBMm2+2T2| T bb2/2 H T1276 BHiBTQQMb B?XB Q 6M B` b2` `û} b Mb`2+2pQB`/2 + HQ`B[m2-2ib i2KT

AK; BMQMb [mö2HH2 bö # Bbb2 BMbB

```
" +2HH2/m +Q`Tb "", " +2 KQK2Mi H2 TBbi(
  Q++mT2 H TOXbBiBQM
9 êG ö B` 2 b i KB b 2 M + Q M i + i p2 + H2 + Q `T k
  +QKT`BKûT `H2`2iQm`/m TBbiQM-[m2 H
  H TQbB?BQMTQbBMB*Q2M B``2bi2 +2T2M/ M
   m M 2 i 2 K T û ` i m ` 2 + Q M b i M i 2 - " + m b 2 / 2 k
   p2 + H2 + Q^Tb = m[m2HBH + /2bQM + HQ^T]
8 êG 2 + Q`Tb " 2 bi û + `iû - 2 i H ö Q M + Q M i B M m 2
  /2 Hö B`-[mB-b2i`Qmp Mi HQ`bBbQHû-b
  im`2XG +QKT`2bbBQM 2bi +QMiBMmû2 Dn
   Bi +[mBb H i2KTû`im`2/m +Q`Tb X G2]
  T2M/Mi+2i2KTb/2H/"THQbTBQBBXRBQM
e êG ö B` 2bi `2KBb 2M +QMi +i p2+ H2 +Q`Tb
   2 i Q m ` M 2 / 2 H BTFQHb BTI BQ Q BM7 Bs QHM i 2 K T û @
  ` im`2 /2K2m`2 BMp `B #H2X
dêG Tû`BQ/2 /û+`Bi2 bQmb H2 MQ~j b2 `2M
  bm++2bbBp2K2Mi H2b Tû`BQ/2b 9-8-e-j
  8- BMbB/2bmBi2X
 Mb + 2b / Bp2`b2b QTû` iBQMb- H2 TBbiQM (
THmb Qm KQBMb; M//2 H T i/2 Hö B 2
H2 + vHBM/^2 c H 7Q^+ 2 ûH biB[m2/2+2i]
+ mb2/2b+? M;2K2Mib/2pQHmK2[m2/2b+?
i2KTû`im`2~cK Bb HöQM/QBi`2K `[m2`[mö
+ ö 2 b i @ " @ / B ` 2 T Q m ` / 2 b T Q b B i B Q M b b 2 K # H
i2KTû` im`2 b2 i`Qmp2 THmb ûH2pû2 T2M/ Mi
/2/BH i iBQM [m2T2M/ MiH2b KQmp2K2Mib/
S2M/ Mi H2b T 2KB2 b- H 7Q + 2 ûH biB[m2/
/QM+ THmb; \ M/2 2i T \ +QMbû[m2Mi H [m |
```

b M+2 KQi`B+2 T`Q/mBi2 T ` H2b KQmp2K2M

hQmi2b H2b QTû`iBQMb +B@/2bbmb /ú 2tû+miû2b / Mb mM b2Mb 2i / Mb mM Q`/` ;BMQMb [mö T` b H bBtB K2 Tû`BQ/2-+ö ûi Mi ``Bpû "H 277 OQ bWB HB2 O7 Mb b 2 `2 p 2 M B ` "H B-F2i [mö2M K K2 i2KTb QM K BMiB2MM2 p2+ H2 +Q`Tb ~, H2 + HQ`B[m2 7Qm`MB T

+Q`Tb - 2i H2b +?Qb2b b2 i`Qmp2`QMi / ûi B2Mi " H }M /2 H Tû BQ/2 + BM [m B K2 QM û+ `i2 H2 +Q`Tb - 2i [m2 HöQM 7 bb2 /2272M+/ H i2KTû`im`2/2HöB`/û+`QWi` /2;`ûb [mö2HH2 bö2bi ++`m2 T2M/ Mi H

H bBtB K2 Tû`BQ/2- `2iQm`M2` "b bQm

2i /2pB2M/\ +2HH2 /m +Q\Tb "X GöQM] +QMiBMm2`mM2bmBi2/öQTû`iBQMbBMg pQMb /ö #Q`/ /û+`Bi2b~, BH bm{i /2 b2 K K2b + B` + Q M bi M + 2b 2i / ö2tû + m i2` T Q m mM KQmp2K2Mi/2/BH i iBQM m HB2m/ö

+QKT\2bbBQM-2i\û+BT\Q[m2K2MiX G2 `ûbmHi i/2b T`2KB `2b QTû` iBQMb /m+iBQM /ömM2 +2`i BM2 [m MiBiû /2 Tm H2 i MbTQi /m + HQB[m2 /m +QTb]

`ûbmHi i /2b QTû` iBQMb BMp2`b2b 2bi H + H TmBbb M+2 KQi`B+2 T`Q/mBi2- 2i H2 `2i(/m +Q`Tb " m +Q`Tb ", /2 bQ`i2 [m2 +2b /2/öQTû` iBQMb bö MMmH2Mi- b2 M2mi` HBb2 HömM2 Hö mi`2X

GöBKTQbbB#BHBiû/27 B`2T`Q/mB`2 m+

iBiû /2 TmBbb M+2 KQi`B+2 THmb; `M/2 [m22M pQMb Q#i2Mm2 T `MQi`2 T`2KB `2 bmB2bi K BMi2M Mi 7 +BH2 "T`Qmp2`X 1HH2 b2mM`BbQMM2K2Mi 2MiB`2K2Mi b2K#H #H2"pQMb 7 Bi mb; 2 T; X ky X G2 `BbQMM2K2IB+B mM /2; `û /ö2t +iBim/2 /2 THmb", Hö B`b2`pQMb TQm` /ûp2HQTT2` H TmBbb M+2 K0"H }M /2 +? [m2 +2`+H2 /öQTû` iBQMb-T`û+QMBHb2i`Qmp Bi /ö #Q`/-i M/Bb [möBH Mö27 Bi /2 K K2 TQm` H p T2m` /ö2 m-BMbB [m`2K` [m%û

LQmb pQMb +?QBbB Hö B` iKQbT?û`B| K2Mi[mB/2p Bi/ûp2HQTT2`H TmBbb M+ H2m`~cK BbBH 2bi ûpB/2Mi[m2 H2b` BbC H2b K K2b TQm` iQmi2 mi`2 bm#bi M+2; TQm` iQmi mi`2 +Q`Tb bmb+2TiB#H2 /2 -`im`2 T` /2b +QMi` +iBQMb 2i /2b /BH i i

bi M+2b/Bp2`b2b-bQBi/MbHö2KTHQB/

i?ûQ`B2 /2 H +? H2m` m` B2Mi #2bQBM /2 Hö2t SHmbB2m`b 7 Bib /ö2tTû`B2M+2 T ` Bbb2Mi " T2m

Höûi i + im2H /2 +2ii2 i?ûQ`B2X

```
Tû`BQ/2b j 2i 8- +2b Tû`BQ/2b 2mbb2Mi Tm
b Mb BM~m2M+2 b2MbB#H2 bm` H T`Q/m+iB
KQi`B+2X IM 7Q`i T2iBi +? M;2K2Mi /2 pQHm
2 M 2 z 2 i T Q m ` T ` Q / m B ` 2 m M 7 Q ` i T 2 i B i + ? M; 2
 im`2-2i+2 T2iBi+? M;2K2Mi/2 pQHmK2 2b
 +¬iû /2 +2HmB /2b Tû`BQ/2b 9 2i e- /QMi I
BHHBKBiû2X
  aB HöQM bmTT`BK2 H2b Tû`BQ/2b j 2i 8 / M
` iBQMb +B@/2bbmb /û+`Bi2- 2HH2 b2 `û/mB
R \hat{e} Q M i + i / m ; x ^2 M 7 \# 2 + \lambda K \hat{u}; 2 M V p 2 + H 2 + Q ^T b
   - T bb ; 2 / m TB+\frac{1}{2} / m TB+\frac{1}{2} / m TB+\frac{1}{2}
k \in HQB; M2K2Mi/m + Q`Tb - + QMi + i/m; x`
   #27p2+H2+Q`Tb"-`2iQm272mM+7TBcbiQM/2
R &LQmb bmTTQb2`QMb-/Mb +2 [mB p bmBp`2-H2 H
/2b /2`MB2`b T`Q; b /2 H T?vbB[m2 KQ/2`M2-2M+2 |
bm#bi M+2b; x2mb2b 2i H +? H2m`X
```

" /2mt ûi ib /Bzû`2Mib- T ` 2t2KTH2- /ömM ;

7 Q M / K 2 M i H 2 + B @ \(\bar{P}\)2\(\bar{D}\) b m b \(\hat{U}\) M Q M + \(\hat{U}\) 2

*2+B MQmb +QM/mBi M im`2HH2K2Mi"/2b
`2bb Mi2b bm` H2b ~mB/2b û`B7Q`K2b~c`2+K M2`QMi /ö BHH2m`b"/2 MQmp2 mt `ûbmHb M+2 KQi`B+2/2 H +? H2m`-2i MQmb/QMM/2 pû`B}2`/ Mb [m2H[m2b + b T `iB+mHB2`b

GöQM`2K`[m2` 7 +BH2K2Mi [m2 MQi`2 / (2?i ûiû bBKTHB}û2 2M bmTTQb Mi H2b i2KTû`2i "7Q`i T2m /Bzû`2Mi2b 2Mi`2 2HH2bX H(K2Mib / m TBbiQM b2 i`Qmp Mi 7Q`i T2m ûi2M

/2MbBiûb/Bzû`2Mi2bX

jêú HQB; M2K2Mi/m +Q`Tb "- +QMi +i/m;
- T bb; 2/m TB+b/i2QM2/7/+2ö2bi@"@/B`2`2M
H2K2Mi/2 H Tû`BQ/2 T`2KB`2- BMbB
G TmBbb M+2 KQi`B+2`ûbmHi Mi2/2 Hö2
iBQMb R-k-b2`ûpB/2KK2Mi H /Bzû`2M+2
T`Q/mBi2 T ` Hö2tT MbBQM/m; xi M/Bb[
i2KTû`im`2/m +Q`Tb - 2i +2HH2[mB 2bi

```
+QKT`BK2` +2; x i M/Bb [möBH b2 i`Qmp2
/m + Q`Tb "X
  amTTQbQMb [m2 H2b QTû`iBQMb R-k
bm` /2mt; x /2 M im`2b +?BKB[m2b /Bzû`
bQmb H K K2 T`2bbBQM-bQmb H T`2bb
T ` 2t2KTH2~, +2b /2mt; x b2 +QKTQ`i2`(
HömM +QKK2 Hö mi'2 / Mb H2b K K2b +B'
/B`2[m2H2m`b7Q`+2b2tT MbBp2b-T`BKE
2HH2b-/2K2m\2\QMiiQmDQm\b û; H2b-[
p `B iBQMb /2 pQHmK2 2i /2 i2KTû` im`2-
p `B iBQMbbQB2MiH2bK K2b/2T `i2i/ö
ûpB/2KK2Mi/2b HQBb/2 J `BQii2 2i/2 JJ
2i . HiQM- HQBb +QKKmM2b " iQmb H2b
2i 2M p2`im /2b[m2HH2b H2b K K2b ` TTC
iQmb +2b ~mB/2b 2Mi`2 H2 pQHmK2- H 7
i2KTû`im`2X
  SmBb[m2/2mt; x/Bzû`2Mib-T`Bb "H
im`2 2i bQmb H K K2 T`2bbBQM-/QBp2Mi
+QKK2 Hö mi`2 / Mb H2b K K2b +B`+QMb
```

7 Bi bm#B` "iQmb /2mt H2b QTû` iBQMb BHb /2p`QMi /QMM2` M Bbb M+2 " /2b [m I KQi`B+2 û; H2bX P` +2H bmTTQb2- /ö T 7QM/ K2Mi H2 [m2 MQmb pQMb ûi #HB2- Hö [m MiBiûb û; H2b /2 + HQ`B[m2- +ö2bi@"@/B H [m MiBiû /2 + HQ`B[m2 T bbû2 /m +Q`Tb H K K2- bQBi [m2 HöQM QT `2 bm` HömM /2b

QT `2 bm` Hö mi`2X

G [m MiBiû /2 + HQ`B[m2 T bbû2 /m +Q`T|
" 2bi ûpB/2KK2Mi +2HH2 [mB 2bi #bQ`#û2 T

bQM 2ti2MbBQM /2 pQHmK2- Qm +2HH2 [m2 · 2MbmBi2 T ` H +QKT`2bbBQMX LQmb bQKK2

ûi #HB`H T`QTQbBiBQM bmBp Mi2~,

GQ`b[mömM; x T bb2- b Mb +? M;2` /2 i2 /ömM pQHmK2 2i /ömM2 T`2bbBQM /ûi2`KBIpQHmK2 2i "mM2 mi`2 T`2bbBQM û; H2K2M [m MiBiû /2 + HQ`B[m2 #bQ`#û2 Qm # M/QMH K K2- [m2HH2 [m2 bQBi H M im`2 /m; x -bmD2i /ö2t \Xû`B2M+2

/ö2 m - /ö H + Q Q H - + ö2 b i @ " @ / B ` 2 b B H ö Q M / (H B i ` 2 / 2 + 2 b ; x T ` B b " H i 2 K T û ` i m ` 2 R y y ê

T`2bbBQM iKQbT?û`B[m2X
 AH 2M b2` Bi /2 K K2- / Mb mM b2Mb BMp2`
/2 /Qm#H2` H2 pQHmK2 /2b; x- QM H2 `û/mB!
H +QKT`2bbBQMX

G [m MiBiû /2 +? H2m` [m2 H2b ~mB/2 ; ; 2 M i Q m # b Q ` # 2 M i / M b H 2 m ` b + ? M; 2 K Mö D K Bb ûiû K2bm`û2 T ` m+mM2 2tT

```
2tTû`B2M+2 [mB Qz`B` Bib Mb/Qmi2/2;`
K Bb BH 2tBbi2 mM2 /QMMû2 [mB 2bi "T2
TQm` MQmb~, +2ii2 /QMMû2 ûiû 7Qm`N
/m bQM~c 2HH2 Kû`Bi2 #2 m+QmT /2 +QN
H `B; m2m`/2b + QMbB/û` iBQMbT` H2b[r
"Höûi #HB`X oQB+B 2M [mQB 2HH2 +QMb]
 Gö B` iKQbT?û`B[m2 /QBi böûH2p2` /
HQ`b[möBH ûT`Qmp2T `H +QKT`2bbBQN
/2 pQHmK2 / 2 * RfRRe
 G2b 2tTû`B2M+2b bm` H pBi2bb2/m bG
```

+2T2M/ MiTQm`THmb/27 +BHBiû "H i2k /Bz `2 T2mX Gö B` +QKT`BKû /2 RfRRe- 2i ûH2pû T ` 7 `2 /2 Hö B` û+? mzû /B`2+i2K2Mi /2 iê [m

/ Mb Hö B`bQmb H T`2bbBQM dey KBHHB H i2KTû` im`2 eê-+ö2bib2mH2K2Mi"+2b [m2/QBib2 `TTQ`i2 `MQi `2/QMMû2XLQr

G2 pQHmK2 T`BKBiB7 ûi Mi bmTTQbû o-RfRRe H2 `û/mBi " o RfRRe oX

R&JX SQBbbQM- " [mB +2ii2 /QMMû2 2bi /m2-

bö ++Q`/2 bb2x #B2M p2+ H2 `ûbmHi i /ömM2 : *HûK2Mi 2i .ûbQ`K2b bm` H `2Mi`û2 /2 Hö B` / Mb / Mb Hö B` mM T2m ` `û}ûX 1HH2 bö ++Q`/2 mbbE p2++2`i BM `ûbmHi i i`Qmpû T ` JJX : v@Gmbb + H MQi2T;X8NXV

Göû+? mz2K2Mi /B`2+i bQmb T`2bbBQM +
/ö T` b H ` ;H2 /2 JX : v@Gmbb +- m;K2Mi2
/2 Hö B` /2 Rfked /2 +2 [möBH b2` Bi " yê",
/ömM2 T `i`û/mBi m pQHmK2 o" RfRRe" o"c
2bi TQ`iû "o"Y"Rfked"oX

G /Bzû`2M+22Mi`2H2b[m MiBiûb/2+? H2Hö B` / Mb HömM 2i Hö mi`2 + b 2bi ûpB/2KK2KTHQvû2 "HöûH2p2` /B`2+i2K2Mi /2 Rê~, [m MiBiû /2 +? H2m` [m2 Hö B` #bQ`#2` BipQHmK2o~ RfRee~o mpQHmK2o~Y~Rfked~c"+2HH2[mB 2bi Mû+2bb B`2 TQm` HöûH2p2`

AK; BMQMbK BMi2M Mi[mö m HB2m/öû+?bQmKBb "mM2 T`2bbBQM +QMbi Mi2 2i TQiHB#`2K2Mi-QM H2 `2M72`K2/ Mb mM2 + T +

2i [mö2M +2i ûi i- QM HmB 7 bb2 +[mû`B` Rê Gö B` BMbB û+? mzû /2 Rê M2 /Bzû`2` /2 H/2 RfRRe [m2 T `bQM pQHmK2 THmb;` M/ /2 bB /QM+ H [m MiBiû /2 +? H2m` [m2 Hö B` T`mM2`û/m+iBQM /2 pQHmK2 /2 RfRRe 2bi [möBH 2tB;2` Bi TQm` böûH2p2` /2 Rê +2MiB+QMbi MiX *QKK2 H2b /Bzû`2M+2b 2Mi`2 H2 RfRRe o- o- 2i o Y Rfked o- bQMi T2iBi2b`2 mt pQHmK2b 2mt@K K2b- QM T2mi`2; `/2` /2 +? H2m` #bQ`#û2b T` Hö B`- 2M T bb M/2 +2b pQHmK2b m b2+QM/- 2i /m T`2KB2`

+QKK2 b2MbB#H2K2Mi T`QTQ`iBQMM2HH2b pQHmK2~, HöQM b2 i`Qmp2/QM+ +QM/mBi " i

bmBp Mi2~,

G [m MiBiû /2 +? H2m` Mû+2bb B`2 T G Hö B`bQmb T`2bbBQM +QMbi Mi2 2bi " H Mû+2bb B`2 TQm` ûH2p2` /2 Rê H2 K K2 +QMbi Mi- / Mb H2 ` TTQ`i /2b MQK#`2b

RfRRe Y Rfked "RfRRe

Qm #B2M 2M KmHiBTHB Mi/2 T `i2i/ö mi`

H2 ` TTQ`i/2b MQK#`2b ked Y RRe " kedX * ö 2 b i / Q M + H " H 2 ` TTQ ` i [m B 2 t B b i 2 2 M Hö B`TQm`H +? H2m`bQmbT`2bbBQM+ bQmbpQHmK2+QMbi MiXaBH T`2KB `2/ 2bi 2tT`BKû2T`HömMBiû-Hö mi`2b2` 2t kedfUkedYRReV Qm "T2m T'b y-dyy~c H y-dyy Qm y-jyy 2tT`BK2` ûpB/2KK2Mi H +? H2m`/2biBMû2 "T`Q/mB`2 Hö m;K2Mi Hö B` HQ`b[möBH 2bi û+? mzû /2 Rê bQmb .ö T` b H HQB /2 JJX : v@Gmbb + 2i . m; K2Mi iBQM /2 pQHmK2 b2` Bi H K K2 mi`2b; x~c/ö T` b H2 i?ûQ` K2 /ûKQMi` +? H2m` #bQ`#û2 T `/2b m;K2Mi iBQMb 2bi H K K2 TQm iQmb H2b ~ mB/2b ûH biB| /QM++QM/mBib " ûi #HB` H T`QTQbBiBQ $G / Bz\hat{u}^2M + 2 2Mi^2H + ? H2m^bT\hat{u} + B$ +QMbi Mi2 2i H +? H2m\bTû+B}[m2 bQmb H K K2 TQm iQ Mb H2b; x

AH 7 mi `2K `[m2` B+B [m2 iQmb H2b; T`Bb bQmb H K K2 T`2bbBQM- H T`2bbE T ` 2t2KTH2- 2i [mö2M Qmi`2 H2b +? H2m

K2bm`û2b T ` TTQ`i mtpQHmK2bX

_B2M M2 MQmb 2bi THmb Bbû K BMi2M MimM2 i #H2 /2b +? H2m`b bTû+B}[m2b /2b; x+QMbi Mi- /ö T`b H +QMM Bbb M+2 /2 H2m+B}[m2b bQmb T`2bbBQM +QMbi Mi2X LQmb i #H2- /QMi H T`2KB `2 +QHQMM2 2bi H2 `û `B2M+2b /B`2+i2b /2 JJX .2H `Q+?2 2i "û``/- kbTû+B}[m2 /2b; x bQmKBb "H T`2bbBQM ik/QMi H b2+QM/2 +QHQMM2 2bi +QKTQbû2 /2T`2KB `2 /BKBMmûb /2 y-jyyX

 $h #H2/2 H +? H2m`bTX+B}[m2/2b; x]$

LPJa.1a: w>	1		mHoXbTû+XbQmb Min2KX2+QMbiMiX
B`iKQbT?û	B[m2	R - y y y	y - d y y
: x ?v/`Q; M2		y - N y j	у - е у ј
+B/2 + `#QM	B[m2	R - k 8 3	y - N 8 3
Ptv; M2		y - N d e	y - e d e
xQi2		R - y y y	y - d y y
S`QiQtv/2/ö	xQi2	R - j 8 y	R - y 8 y
: x Q H û } M i		R - 8 8 j	R - k 8 j
Ptv/2 /2 + `#(Q M 2	R - y j 9	y - d j 9

G 2 b M Q K # ` 2 b / 2 H T ` 2 K B ` 2 + Q H Q M M 2 2 i + 2 r b Q M i B + B ` T T Q ` i û b " H K K 2 m M B i û - " H + ? / 2 H ö B ` i K Q b T ? û ` B [m 2 b Q m b T ` 2 b b B Q M + Q f G / B z û ` 2 M + 2 2 M i ` 2 + ? [m 2 M Q K # ` 2 / 2 H T

HQMM2 2i H2 MQK#`2 +Q``2bTQM/ Mi /2 H

+QMbi Mi2- H2 ` TTQ`i 2Mi`2 +2b MQK#` `B #H2~, BMbB-H2 ` TTQ `i 2Mi `2 H +? ; x bQmb T`2bbBQM +QMbi Mi2 2i H +? H pQHmK2+QMbi Mip `B2HQ`b[möQMT bb2 LQmb pQMb pm [m2 Hö B`- HQ`b[möBH T`2bbBQM bm#Bi2/2 RfRRe/2 bQM pQHmł mbbB/2i2KTû`im`2~, BHb/QBp2Miböûl û; H2K2Mi2M` BbQM BMp2`b2/2 H2m`+? pQHmK2 +QMbi MiX 1M 2z2i- H `û/m+iBQ T`?vTQi? b2 iQmDQm`b H K K2- H [m | /m2 " + 2 i i 2 ` û / m + i B Q M / Q B i i ` 2 m b b B i Q m $T \rightarrow QMb\hat{u}[m2Mi/QBiTQ/mB^2mM2\hat{u}H\hat{u}p]$ /ûT2M/ Mi2 b2mH2K2Mi/2 H +? H2m`bTû $H2: x T b b + QKT 2bbBQM - 2i \hat{u}pB/2KK$ p2`b2/2+2ii2+? H2m`bTû+B}[m2X AH MC 7Q`K2`H i #H2/2b ûHûp iBQMb/2i2KTû` ; x-TQm\mM2+QKT\2bbBQM/2RfRReX $G pQB+B^{\sim}$,

h #H2 m /2 HöûHûp iBQM /2 i2KTû` im`2 / /2 H +QKT`X2bbBQM

LPJa.1a: wX	úHûp iBQM /2 i2KTX TQm mM2 `û/m+iX /2 pQHmK2 / RfRReX
B` iKQbT?û`B[m2	R - y y y
: x ?v/`Q; M2	R - R e y
+B/2 + `#QMB[m2	y - d j
PtB; M2	R - y 8
xQi2	R - y y y
S`QiQtB/2/ö xQi2	y - e e d
: x Q H û } M i	y - 8 8 3
PtB/2/2 + `#QM2	y - N 8 8

/2 + 2b; x / öm M 2 [m MiBiû " T 2m T ` b û; H 2 " H K Bb BH Mö 2M b 2 ` Bi T b / 2 K K 2 / öm M 2 i ` Q [m i ` B K 2 - / öm M 2 + 2 M i B K 2 + Q K T ` 2 b b B Q M T + B i û / 2 b; x T Q m ` H + ? H 2 m ` + ? M; 2 p 2 + H 2 2 b i i ` b @ T Q b b B # H 2 [m ö 2 H H 2 + ? M; 2 m b b B L Q m b H H Q M b K B M i 2 M M i / û / m B ` 2 / 2 H T M û ` H 2 û M Q M + û 2 T ; X j 3 - m M b 2 + Q M / i ? û Q ` K + Q K T H û K 2 M i " + 2 H m B [m B p B 2 M i / ö i ` 2 / û K Q I A K ; B M Q M b [m 2 H 2; x ` 2 M 7 2 ` K û / M b H + / ` B [m 2 + U]; X k V b Q B i i ` M b T Q ` i û / ö M 6 b + b / e T + U]; X j V - / ö û; H 2 ? m i 2 m ` - K B b / 2 # b 2 / B z û ` û i 2 M / m 2 ~ , + 2; x m; K 2 M i 2 ` / 2 p Q H m K 2 - / B

/2 M b B i û 2 i /2 7 Q ` + 2 û H b i B [m 2 / M b H 2 ` T T /2 m t p Q H m # K + 2 b ö # X 6 + Z öm/ö M i " H T ` 2 b b B Q M i Q i

IM2 MQmp2HH2 +QKT`2bbBQM /2 RfRRe U/r ûH p2` Bi2M+Q`2-+QKK2QMH2p2`` #B2Mi $2t2^+\hat{u}^2 bm^+ + ? [m/2 + B 2 c d + Q + M 2 b 2^+ H K K 2 T i 2 i / ö m i 2 - + `H bm 7 + 2 / 2 + 2 b T B b i$

amTTQbQMb [m2 HöQM 2tû+mi2 bm` Hi

/B`2+i2 /2b pQHmK2bX

ö#ö+lö2öb QTû` iBQMb /û+`Bi2b T ;X jN-+2Mbû2b 7 Bi2b bm` H2 ;#x+-/ $\frac{2}{2}$ M/ $\frac{1}{2}$ M

MQi`2 /ûKQMbi` iBQM-2bi mM2 /2b HQBb T?vbB[m31HH2 b2`pB /2 # b2 "THmbB2m`b i?ûQ`B2b pû`B} [mB pû`B}2Mi "H2m` iQm` H2b HQBb bm` H2b[m2HT2mi +Bi2` 2M+Q`2 +QKK2 pû`B}+ iBQM T`û+B2mb2i mbbB /2 +2HH2 /2 JJX : v@Gmbb + 2i . HiQMBBMi2`p HH2 /2 i2KTû` im`2- H2b 2tTû`B2M+2b /2 JUoQWXM H2b /2 T?vbB[m2-27îû/p²\B2BRBR3-iQK2 d-RkkXV PM T2mi +Bi2` 2M+Q`2 /2b 2tTû`B2M+2b T.pv 2i 6` / vX

+QMb2`p Mi iQmDQm`b 2Mi`2 2HH2b H2b

R & G HQB/2J `BQii2-bm` H [m2HH2 MQmb MQmb 7

G2b i?ûQ` K2b [m2 MQmb /û/mBbQMb B+B M2 b22t +ib bB QM H2b TTHB[m Bi ?Q`b /2 +2`i BM2b HbQBi /2 i2KTû` im`2~, BHb M2 /QBp2Mi i`2 `2; `/û

```
/2b TQbBiBQMb b2K#H #H2b /2b TBbiQMb- 2
ûi Mi iQmDQm`b û; H2b /2 T `i 2i /ö mi`2- H
iQi H2b 2t2`+û2b bm` H2b TBbiQMb +QMb2`
K K2 ` TTQ`i 2Mi`2 2HH2bX aB +2 ` TTQ`i 2b
[m2H+QM[m2-+2HmB /öû; HBiû- H2b T`2bbE
û: H2bX
  *QKK2/ö BHH2m`b H2b KQmp2K2Mib/2b/2
/2b KTHBim/2b û; H2b- H TmBbb M+2 KQi`
T `i 2i / \ddot{o} mi`2 b2` \hat{u} pB/2KK2Mi H K K2~, /
/QBi +QM+Hm`2- /ö T` b H T`QTQbBiBQM /2
H2b [m MiBiûb / 2 + ? H2m` 2KTHQvû2b / 2 T `i
H2b K K2b-+ö2bi@"@/B`2 [möBH T bb2/m +0
H K K2 [m MiBiû /2 +? H2m` / Mb H2b /2mt +
  G +? H2m`2KT`mMiû2 m +Q`Tb 2i`2M/m
Mö2bi mi`2 + ? Qb2 [m2 H + ? H2m` #bQ`#û2 T/m ; x 2i /û; ;û2 2MbmBi2 T ` b +QKT`2bb
bQKK2b/QM++QM/mBib "ûi #HB`H2i?ûQ` K
  GQ`b[mömM ~mB/2 ûH biB[m2 T bb2 b Mb +
Tû`im`2 /m pQHmK2 I m pQHmK2 o- 2i [mö
[m MiBiû TQM/û` #H2 /m K K2; x T bb2 bQr
i2KTû`im`2/m pQHmK2 lö m pQHmK2 oö-bE
lö " oö b2 i`Qmp2 H2 K K2 [m2 H2 ` TTQ`i /2
[m MiBiûb /2 +? H2m` #bQ`#û2b Qm /û; ;û2
Hö mi'2 + b b2'QMi û;XH2b 2Mi'2 2HH2b
  *2 i?ûQ` K2 T2mi i`2 ûMQM+û/ömM2 mi`2
```

 $pQB+B^{\sim}$,

[/] Mb H2b HBKBi2b QM H2b HQBb /2 J `BQii2 2i /2 JJX . HiQM bQMi 2HH2b@K K2b +QMbi iû2bX

T`Q; `2bbBQM; &QKûi `B[m2

GQ`b[mömM; x p `B2 /2 pQHmK2 b Mb Tû` im`2- H2b [m MiBiûb /2 +? H2m` #bC T `+2; x bQMi 2M T`Q; `2bbBQM `Bi?KûiB b2K2Mib Qm H2b `û/m+iBQMb /2 pQHmK2

GQ`b[m2 HöQM +QKT`BK2 mM HBi`2 /ö i2KTû` im`2 Ryê- 2i [möQM H2 `û/mBi "

/û; ;2 mM2 +2`i BM2 [m MiBiû /2 +? H2m` b2 i`Qmp2` iQmDQm`b H K K2 bB HöQM` pQHmK2 /2 Rfk HBi 2 " Rf9 /2 HBi 2- /2 Rf BMbB/2bmBi2X aB m HB2m/2+QKT`BK2`Hö B`QMH2T " k HBi`2b- 9 HBi`2b- 3 HBi`X- 2i+X- BH 7 [m MiBiûb /2 +? H2m`iQmDQm`b û; H2b i2KTû` im`2 m K K2/2:`ûX *2+B `2M/7 +BH2K2Mi ` BbQM/2 H i2K H [m2HH2T `pB2Mi Hö B`T `mM2 +QKT`2 [m2+2ii2i2KTû`im`2bm{i TQm`2M~ KK2 K K2 TQm`[m2 Hö B`/2pB2MM2 HmKBM2 $TQm \ mM \ BMbi \ Mi \ H + ? \ H2m \ bTû+B}[m2]$ K H; `û H2b +? M; 2K2Mib /2 pQHmK2 2i /2 i2KTû`im`2+`QWi` 2MT`Q;`2bbBQM `Bi ` û / m + i B Q M b / 2 p Q H m K 2 2 M T ` Q ; ` 2 b b B Q M ; i Mi/2 + 2 i i 2 / Q M M û 2 - 2 i / K 2 i i M i [m ö m M / 2 / Mb H i2KTû` im`2 +Q``2bTQM/ " mM2 -RfRRe-QM ``Bp2` 7 +BH2K2Mi" +QM+H " RfR9 / 2 b Q M p Q H m K 2 T`B K B i B 7 / Q B i b ö û H 2 p / 2 ; `û b m { b M i T Q m ` 2 M ~ K ℓ 2 ` H ö K / Q m

GöûHûp iBQM /2 i2KTû` im`2 /QBi i`2 ûpB +Q`2 THmb +QMbB/û` #H2 bB H + T +Biû /2 H /2pB2Mi KQBM/`2 " K2bm`2 [m2 bQM pQHmK2 +ö2bi +2 [mB 2bi T`ûbmK #H2- 2i +ö2bi K K2 `ûbmHi2` /2b 2tTû`B2M+2b /2 JJX .2H `Q+?2 2 + HQ`B[m2 bTû+B}[m2 /2 Hö B`T`Bb "/Bp2`b2

R 3KG Q`b[m2 H2 pQHmK2 2bi `û/mBi /2 RfRRe- +ö2bi@
/2pB2Mi RR8fRRe /2 +2 [möBH ûi Bi /ö #Q`/- H i2KT
/2 R /2;`ûX

IM2 MQmp2HH2 `û/m+iBQM /2 RfRRe TQ`i2 H2 pQHm H i2KTû` im`2 /QBi böûH2p2` /ömM MQmp2 m /2;`ûX

T` bi `û/m+iBQMbT `2BHH2b-H2pQHm2K2H/2pB2Mi Ui2KTû` im`2/QBi bö it 2/2û; H02bpXi2/2

a B H ö Q M T Q b 2 4 L R ? R 8 F R 2 R 1 m 2 H ö Q M T 2 M M 2 H 2 b H Q; /2 T `i 2 i / ö m i 2 - Q M i Q m p 2

t 4 jyyê 2 MpB`QMX

aB HöQM TQb24URRFR8QRWRieVQmp2

t 4 3 y ê X

*2 [mB KQMi`2 [m2 Hö B` +QKT`BKû /2 KQBiBû böûH phQmi +2+B 2bi bm#Q`/QMMû "Hö?vTQi? b2 [m2 H + /2 Hö B` M2 +? M;2 T b [mQB[m2 H2 pQHmK2 /BKBMm2 H2b` BbQMb 2tTQbû2b +B@ T` b T;2b 83 2i eR-QMbTû+B}[m2 /2 Hö B` +QKT`BKû /2 KQBiBû +QKK2`û/mB/2 dyy "eRe-BH 7 mi KmHiBTHB2` H2 MQK#`2 3yê T`TQ`i2 "NyêX

H 2 J û K Q B ` 2 B K T ` B KMîM M 2bH/22b+i?QBKKXB 28 -

G2b/2mti?ûQ`K2bûMQM+ûbT;X9R

T : X dk - kk9XV

7Qm'MB'X

}b2Mi TQm` +QKT `2` 2Mi`2 2HH2b H2b [n
#bQ`#û2b Qm /û; ;û2b / Mb H2b +? M;2K2|
~mB/2b ûH biB[m2b- [m2HH2b [m2 bQB2Mi
H M im`2 +?BKB[m2 /2 +2b ~mB/2b- TQm`
bQB2Mi iQmb T`Bb 2i K BMi2Mmb " mM2 +2
BMp `B #H2- K Bb +2b i?ûQ` K2b M2 7Qm`|
/2 +QKT `2` 2Mi`2 2HH2b H2b [m MiBiûb /
Qm #bQ`#û2b T ` /2b ~mB/2b ûH biB[m2l
pQHmK2 "/2b i2KTû` im`2b /Bzû`2Mi2bX E
[m2H ` TTQ`i 2tBbi2 2Mi`2 H +? H2m` /û;
/ö B` `û/mBi " KQBiBû- H i2KTû` im`2 ûi
yê- 2i H +? H2m` /û; ;û2 T ` H2 K K2 HBi`
KQBiBû- H i2KTû` im`2 ûi Mi K BMi2Mm2 "
b M+2 /2 +2` TTQ`i 2bi HBû2 " +2HH2 /2 H
/2b; x " /Bp2`b /2;`ûb /2 i2KTû` im`2- 2i

G2 b2+QM//2 MQb i?ûQ` K2b MQmb Qz +QMM Wi`2 bmBp Mi [m2HH2 HQB p `B2 H ; x p2+ H2m`/2MbBiûX /K2iiQMb [m2 H2b QTû` iBQMb/û+`Bi2

mi`2b /QMMû2b [m2 H T?vbB[m2 +im2H

/2 bö2tû+mi2` p2+/2mt+Q`Tb - "-/QMiH/Bz `2Mi2Mi`2 2HH2b/ömM2[m MiBiû BM}+mi2Mi p2+/2mt+Q`Tb/QMiH2bi2KTû`

2Mi`2 2HH2b /ömM2 [m MiBiû }MB2- /2 Rê mM +2`+H2 +QKTH2i /öQTû` iBQMb H2 +Q`

ûH biB[m2 mM2 +2`i BM2 [m MiBiû /2 +? H2m /BpBbû2 2M /2mt TQ`iBQMb~, Rê +2HH2 [mB 2 K BMi2MB` H i2KTû` im`2 /m ~mB/2 " mM /2 T2M/ Mi H /BH i iBQM~c kê +2HH2 [mB 2bi 7 B`2 `2p2MB` H2 ~mB/2 /2 H i2KTû` im`2 /r i2KTû` im`2 /m +Q`Tb - HQ`b[m2 T` b pQB ~mB/2 " bQM pQHmK2 T`BKBiB7- QM H2`2K2 H2 +Q`Tb X LQKKTQ`N2KB` 2 /2 +2b [M MiBiûb-H b2+QM/2~, H2 + HQ`B[m2 iQi H 7Qm`MB T2tT`BKû TY #X

Y #4 ÖY #ö

Qm #B2M

ö4 # ö #X

P`- /ö T` b H2 i?ûQ` K2 ûMQM+û T ;X 8k- H2
2i öbQMi BM/ûT2M/ Mi2b /2 H /2MbBiû /m ;
iQmi27QBb [m2 H [m MiBiû TQM/û` #H2 `2b
[m2 H2b p `B iBQMb /2 pQHmK2 bQB2Mi T`Q

```
pQHmK2 T`BKBiB7X G /6B/zQûB2M2+k2THB` H
K K2b +QM/BiBQMb-2i T ` +QMbû[ml@Mi n
    # [mB HmB 2bi û# ö2Hb2iXHJ2 BbHQ`B[m2 Mû+
TQm` ûH2p2` /ömM /2;`û H2#,+xU}2XM k2 k6û
# ö2bi H2 + HQ`B[m2 # M/QMMû T ` H2; x-
2M#27BH b2`27`QB/Bi/2 R /2;`û~c +2b [m
b2`pB` /2 K2bm`2 mt +? H2m`b bTû+B}[m
/QM+ +QM/mBib "ûi #HB` H T`QTQbBiBQ
G2 +? M;2K2Mi QTû`û / Mb H +? H2m`
; x T ` bmBi2 /ömM +? M;2K2Mi /2 pQHm
[m2K2Mi/m` TTQ`i 2Mi`2 H2 pQHmK2 T`B
p`&xî*ö2bi@"@/B`2[m2H /Bzû`2M+2/2b+
```

b2mH2K2Mi/2 H2m`` TTQ`iX
 *2ii2 T`QTQbBiBQM T2mi i`2 ûMQM+û2
MB `2 [m2 pQB+B~,
 GQ`b[mömM ; x m;K2Mi2 /2 pQHmK2]

M2/ûT2M/T b/2 H; M/2m #bQHm2/2b

; û Q K û i `B [m 2 - b + ? H 2 m ` b T û + B } [m 2 b ö + · `Bi ? K û ì x B [m 2 B M b B i M i H + ? H 2 m ` b T û + B } [m 2 / 2 H ö / 2 M b B i û / Q M M Y û 2 H 2 # ? H 2 m ` b T û + B } [m 2 T

/2MbBiû KQBiBû KQBM/`2-2HH2 b2`-TQ m [m `iY k?~c TQm` mM2/2MbBiû û; H2 m Y j?~c BMbB/2 bmBi2X

G2b+? H2m`b bTû+B}[m2b bQMi B+B` 1HH2b bQMi bmTTQbû2b T`Bb2b bQmb pQBBMbB [möQM p H2 pQB`- 2HH2b bmBp` B

ûi B2Mi T`Bb2b bQmb T`2bbBQM +QMbi M

G /Bzû`2M+2 2Mi`2 H +? H2m` bTû+B}[m2 +QMbi Mi2 2i H +? H2m` bTû+B}[m2 bQmb pQ iQmDQm`b H K K2-[m2HH2[m2 bQBi H /2Mb [m2 H [m MiBiû TQM/û` #XH2`2bi2 H K K2

*2b +? H2m`b bTû+B}[m2b m;K2Mi2Mi iQ K2bm`2 [m2 H /2MbBiû/m; x/BKBMm2- K Bb M2 p `B 2 NT b

[m2 H2 ` TTQ`i MöûT`Qmp2 HmB@K K2 [m2 /2 T2iBib +

R NKJJX: v@Gmbb + 2i q2Hi2`QMii`Qmpû-T`/2b 2t/B`2+i2b + Biû2bjû/+ MbBHHm2 + 2ûH/2blib2 H N2bl H2b /2
T?vbB[m2 2i /2 B+ nB BKHBH22i R 3 k k - T X ked - [m2 H2` TTQ +? H2m`bTû+B}[m2 bQmb T`2bbBQM + QMbi Mi2 2i HbQmbpQHmK2 + QMbi Mip`B2i`b@T2m p2+ H /2Mb+2 [m2 HöQMpB2Mi/2pQB`-+ö2biH /Bzû`2M+2 [mB/2i MQM H2` TTQ`iX*QKK2/ö BHH2m`b H +? H2m`bTQm`mMTQB/b/QMMû-p`B2i`b@T2m p2+ H /2MbB

SmBb[m2 H /Bzû`2M+2 2Mi`2 H2b /2m
H +? H2m` 2bi +QMbi Mi2- bB HömM2 bö
`Bi?KûiB[m2- Hö mi`2 /QBi bmBp`2 mM2
#H #H2~, BMbB MQi`2 HQB 2bi TTHB+ #
+B}[m2b T`Bb2b bQmb T`2bbBQM +QMbi N

LQmb pQMb bmTTQbû i +Bi2K2Mi Hö m +? H2m`bTû+B}[m2 p2+ +2HH2/m pQHm iBQM`ûbmHi2/2b 2tTû`B2M+2b/2JJX.2H 2M 2z2i- +2b T?vbB+B2Mib QMi i`Qmpû y-bTû+B}[m2 /2 Hö B`bQmb H T`2bbBQM IUpQv2x H2 JûKQB`2/ûD" +BiûV- 2M T`2N+? H2m`bTû+B}[m2/m K K2 TQB/b/ö B`y-dey K i`2bX
.ö T`b H HQB [m2 bmBp2Mi H2b +? H2`TTQ`i mt T`2bbBQMb-BH bm{i/2 H2b p/2mt + b T`iB+mHB2`b-TQm` H2b +QM+HTQbbB#H2b", +ö2bi BMbB [mö2M 7 Bb

 $+? H2m`b bTû+B}[m2b/2b \sim mB/2b û`B7Q`K2bX]$

/ö2tTû`B2M+2/2JJX.2H `Q+?22i "û` `/-[

G2 ` TTQ`i2Mi`2 H +? H2m`bTû+B}[m2/2 Hö B`

T`2bbBQM +QMbi Mi2 2i bQmb pQHmK2 +QMbi Mi Gmbb + 2i q2Hi2`- R-jd93- MQK#`2 " T2m T` b +QMH2b T`2bbBQMb 2i K K2 TQm` iQmi2b H2b i2KTû` T `p2Mmb- T ` /ö mi`2b +QMbB/û` iBQMb- m MQKR-99- [mB 2M /Bz `2 Rfky /2 - 2i MQmb MQmb bQMQK#`2 TQm` /`2bb2` mM2 i #H2 /2b +? H2m`b bTû pQHmK2 +QMbi Mi~, BMbB BH M2 7 mi T b +QMbB#B2M 2t +i2- MQM THmb [m2 H i #H2 /QMMû2 T ;)/2biBMû2b T`BM+BT H2K2Mi "K2ii`2 2M ûpB/2M+2

` TTQ`iû- MQmb pQMb/`2bbû H i #H2 bmBp bTû+B}[m2b/2 Hö B` bQmb/Bp2`b2b T`2bbB(

	*? H	IX b	Tû+X		* ? H X	b†û+X
	+ 2 H	H2/	2		+2HH2	/ 2
S`2bbB2QM	иНö Б	3`b(Q 8 n` b b	b B2QMM	Hö B`	b Q m b
iKQbT?`	2T5 X 2 k	bB(MKQ	ο T ? 🔌 2	2T	з ф М
	iKG	bΧ			iKQbX	
	ûi M	li R X	(ûi Mi R	X
RfRy	k 9	R - 3	9 y	R	R -	<u>у</u> уу
Rf8I	R k	R - d	8 e	k	у -	NRe
Rfk8	ве	R - e	d k	9	y - :	3 j k
RfR	k 3	R - 8	3 3	3	y -	d 9 3
Rfe	9	R - 8	y 9	Rе	y -	e e 9
Rfj	K	R - 9	k y	j k	y -	8 3 y
RfR	е	R-jj	е	e 9	y -	9 N e
R f	3	R-k	8 k	R k 3	y - :	9 R k
R f	9	R - R	e 8	k 8 e	y	i k 3
Rf	K	R - y	3 9	8 R k	у -	k 9 9
R		R - y	уу	Ryk	9 y -	R e y

G T`2KB `2 +QHQMM2 2bi- +QKK2 QM pQBi-;ûQKûi`B[m2-2i H b2+QM/2 mM2 T`Q;`2bbB(LQmb pQMb ûi2M/m H i #H2 Dmb[mö" /2b 2i/2b ` `û7 +iBQMb 2ti` K2bX AH 2bi" +`QB`2 /ö +[mû`B` mM2/2MbBiû Ryk9 7QBb b /2MbB "@/B`2 p Mi /2 /2p2MB` THmb /2Mb2 [m2 H HB[mû}ûX G2b +? H2m`b bTû+B}[m2b bö MM /2pB2M/` B2Mi Mû; iBp2b 2M T`QHQM;2 M
/2`MB2`i2`K2X LQmb T2MbQMb m `2bi2 [ib2+QM/2+QHQMM2/û+`QBbb2Mi B+B 2M]
G2b 2tTû`B2M+2b [mB b2`p2Mi/2 # b2 " M
7 Bi2b / Mb /2b HBKBi2b i`QT `2bb2``û2b]
bö ii2M/`2 "mM2;` M/2 Dmbi2bb2 / Mb H2b pQMb Q#i2Mmb-bm`iQmi / Mb H2b MQK#` SmBb[m2 MQmb +QMM BbbQMb /ömM2 H [m2HH2H +? H2m`b2/û; ;2T`H +QK]

```
/2 Hö mi`2 H HQB bmBp Mi H [m2HH2 p `B
p2+ H2 pQHmK2- BH MQmb b2 \ 7 + BH2 /2
K2Mib /2 i2KTû` im`2 / ö m M; x [ m 2 H ö Q M +
H Bbb2` T2`/`2 /2 + HQ`B[m2X 1M 2z2i H
i`2 +2Mbû2 /û+QKTQbû2 2M /2mt QTû` iB
Rê +QKT`2bbBQM "i2KTû` im`2 +QMbi Mi
+ HQ`B[m2 ûKBbX G i2KTû` im`2 böûH p2
QTû`iBQM2M`BbQMBMp2`b2/2H +? H2
T \cdot H2; x- T \cdot bb \cdot \hat{u}/m + iBQM/2pQHmK2-
[m2\ MQmb\ b\ pQMb\ +\ H+mH2] m\ KQv2M\ /2
+B@/2bbmbX G +? H2m`/û;;û2 T ` H +/ö T` b H2 i?ûQ` K2 /2 H T;X 8k- i`2 `2
m M 2 2 t T ` 2 b b B Q Mb/42 HY "7 Q QK, 2pû-i bM i + 2 i i 2
+? H 2pmH^2 p Q H m K 2 / m ; x T b H <math>+ Q K T 2 b
/2b + Q M b i M i 2b ` # B i ` B ` 2b / û T 2 M / M i 2b /
/m; x-/2 b T`2bbBQM 2i/2b mMBiûb/QMi
  G + ? H2m`bTû+B}[m2-p`B Mi p2+ H2]
HQB/ûKQMi`û2iQmi "Hö?2m`2-/QBi i`2`
2tT`2bbBQM /2xH4 76Q/`KH2Q; pö 2i "ö ûi Mi
/2b + Q M b i M i 2b `# B i `B `2b / B z û `2 M i 2b / 2
```

Hö2z2i/2 H +QKT`2bbBQM2biT`QfTwQ`iBQMM Qm m`TTQY"iVHQ;\/pfUdUY"\&HQ;\/pXAHT2mi i`2 `2T`ûb2Miû T ` +2 ` TTQ`i HmB@K K2~ $M \ Q \ K \ K \ M \ M \ Q \ m \ b \ m \ Q \ MYb" \ W M \ QU; VUpf \ U \ U \ U \ V \ V \ W$ HQVX aB pQHmK2 T`BKBiB7 /m; x 2bi R 2i H T`BKBiBp2 yê HöQMi4mỳ-H"QH,4p7/Q,BöbQM 4 y X 2 t T`B K 2` H Q`b M Q M b 2 m H 2 K 2 M i H ö + + i2KTû` im`2-K Bb H i2KTû` im`2 2HH2@K K xû`Q i?2`KQKûi`B[m2X AH M2 7 m/ $\dot{}$ Bi T b +QMbB/ \dot{u} 2 H 7Q Kr p2MQMb /2 /QMM2` +QKK2 TTHB+ #H2 " /2 +? M; 2K2Mib / 2 pQHmK2 / 2b; xX LQmb pC HöûHûp iBQM /2 i2KTû` im`2 +QKK2 ûi Mi 2M $/2 H +? H2m`bTû+B}[m2~c+2 [mB bmTTQb]]$ H +? H2m`bTû+B}[m2+QMbi Mi2 "iQmi2b H .2 ; M/b +? M; 2K2Mib /2 pQHmK2 2Mi WM; x / 2; M/b + ? M; 2K2Mib / 2 i2KTû im 2 - 2 $MQmbT^Qmp2H + QMbiM+2/2H + ? H2m^b$ /2; `ûb- bm `iQmi "/2b/2; `ûb 7Q `i ûHQB; Mûl mi 2bX *2ii2 +QMbi M+2 Mö2bi [mömM2 ?v

 $G\ddot{o} + + QBbb2K2Mi/2i2KTû`im`2 + [mBbT]$

TQm` H2b; x T ` M HQ; B2-pû`B}û2 T bb #H +Q`Tb bQHB/2b 2i HB[mB/2b / Mb mM2 +2`i Höû+?2HH2 i?2`KQKûi`B[m2- K Bb /QMi H2b JJX .mHQM; 2i S2iBi QMi 7 Bi pQB` HöBM2t + p2mi Höûi2M/`2"/2bi2KTû` im`2b\%\\ i m@/2

k yXG ö Q M M 2 p Q B i T b / 2 ` B b Q MTTEQ Och `B+/OK N2 ibi î 2M + 2 / 2 H + ? H 2 m ` b T û + B } [m 2 / 2 b + Q ` T b " / B p 2 ` b 2 b i 2 K T û

```
/B`2 TQm` /K2ii`2 [m2 /2b [m MiBiûb û; H2b /2 +?
/2b ++`QBbb2K2Mib û; mt / Mb H2 /2;`û i?2`KQKû
[m M/K K2 +2 +Q`Tb M2 +? M;2` Bi MB /öûi i MB /2
+2 b2` Bi-T `2t2KTH2-mM~mB/2 ûH biB[m2 `2M72
BM2ti2MbB#H2X.2b2tTû`B2M+2b/B`2+i2bbm`/2b
p B2Mi T`Qmpû [mö2Mi`2 yê 2i Ryyê-/2b ++`QBb
H2b [m MiBiûb /2 +? H2m` T`Q/mBb B2Mi /2b +
T` b û; mt / Mb H2b /2; `ûb /2 i2KTû ` im `2~c K Bb
THmb `û+2Mi2b /2 JJX .mHQM; M2N/ SH22iBsi/2Uo+Q\BXKB
2i /2 T?vbB7[ûmp2B2`-K`b 2i p`BH R3R3V QMi 7 Bi
+Q``2bTQM/ M+2 M2 b2 bQmi2M Bi THmb " /2b i2
/2bbmb /2 Ryyê- bQBi [m2 +2b i2KTû` im`2b 7mb
H2 i?2`KQK i`2 " K2`+m`2- bQBi [mö2HH2b 7mbb
i?2`KQK i`2 " B`X
  LQM b2mH2K2Mi H2b +? H2m`b bTû+B}[m2b M2]
mt /Bp2`b2b i2KTû` im`2b- K Bb 2M Qmi`2 2HH2I
2Mi<sup>2</sup> 2HH2b H2b K K2b <sup>TTQ</sup>ib<sup>c</sup> / 2 bQ<sup>i</sup> [mö
KQKûi`B[m2 M2 TQm`` Bi ûi #HB` H +QMbi M+2 /
bTû+B}[m2b " H 7QBbX AH 2?i ûiû BMiû`2bb Mi/2
B``û;mH `Biûb bm#bBbi2Mi TQm` H2b bm#bi M+2b
Tû`B2M+2b T`ûb2Mi B2Mi B+B /2b /B{+mHiûb T`2b
  G2b B^{\hat{}}\hat{u}; mH ^Bi\hat{u}b /2b +? H2m^b bT\hat{u}+B}[m2b /2
`B2Mi i`2 ii`B#mû2b- +2 MQmb b2K#H2- "/2 H
THQvû2 "T'Q/mB'2 mM +QKK2M+2K2Mi/2 7mbBQ
[mB b2 7 Bi b2MiB` / Mb H THmT `i /2 +2b +Q`Tb
H 7mbBQM +QKTH i2X PM T2mi TTmv2` +2ii2 QT
bmBp Mi2~, /ö T` b H2b 2tTû`B2M+2b K K2b /2 JJ)
Hö ++ `QBbb2K2Mi /2 +? H2m` bTû+B}[m2 p2+ H
`TB/2 / Mb H2b bQHB/2b [m2 / Mb H2b HB [mB/2b-[
/ömM2/BH i #BHBiû THmb +QMbB/û` #H2XG + ml
p2MQMb /2 bB; M H2`- bB 2HH2 2bi `û2HH2- /BbT `
```

H2b; xX

.ö T` b mM2 HQB /m2 " JJX *HûK2Mi 2i .û HQB ûi #HB2 T ` H pQB2 /2 Hö2tTû`B2M+2 / / 62 m- bQmb [m2H[m2 T`2bbBQM [mö2HH2 b0 iQmDQm`b- " TQB/b û; mt- H K K2 [m MiBiû . [mB`2pB2Mi " /B`2 [m2 H p T2m` +QKT`BKû2 + MB[m2K2Mib Mb T2`i2 / 2 + ? H2m`b2` iQml " b im` iBQM /2 Hö2bT +2- bB 2HH2 2bi T`B +QMbiBimû2X G p T2m` / 62 m BMbB +QMbiB`2; `/û2 +QKK2 mM; x T2`K M2Mi~c 2HH2 /QEiQmi2b H2b HQBbX S ` +QMbû[m2Mi H 7Q`Kn

i 4 U UY " VH Q \/ pf UdUY " VöH Q \/ p

/QBi HmB i`2 TTHB+ #H2-2i b2 i`Qmp2`2M H i #H2/2b i2MbBQMb `ûbmHi Mi2/2b 2tTû`E JX . HiQMX

PM T2mi bö bbm`2` 2M 2z2i [m2 MQi`2 70mM2 /ûi2`KBM iBQM +QMp2M #H2 /2b +QMbi `2T`ûb2Mi2 /ömM2 K MB `2 7Q`i TT`Q+?û2 Hö2tTû`B2M+2X G2b T2iBi2b MQK HB2b [m.+QMi`2` Mö2t+ /2Mi T b +2HH2b [mB /QBp2N BbQMM #H2K2Mi mt 2``2*fbx`b /öQ#b2`p iBQ

kRSQm`/ûi2`KBM2`H2b+QMbi Mi2b `#Bi` B`2b - "/2b `ûbmHi ib +?QBbBb / Mb H i #H2 /2 JX . HiQM-BH
T ` + H+mH2` H2 pQHmK2 /2 H p T2m` /ö T` b b T
i2KTû` im`2-+2 [mB 2bi +?Qb2 7 +BH2 m KQv2M /2b
2i /2 JX : v@Gmbb +- H [m MiBiû TQM/û` #H2 /2 H
/ö BHH2m`b }tû2X

G2 pQHmK2 b2` /QMMû T ` Höû[m iBQM

p4 + Uke dWT-

/ Mb H [mp22HbH 2-2 pQH H K 22-KTû` TmH 2 T`2bbBQM - 2 +m M 2 [m MiBiû +QMbi Mi2 /ûT2M/ Mi2 /m TQB/b /2 m M Biûb /QMi QM 7 Bi +?QBtX

oQB+B H i #H2 /2b pQHmK2b Q++mTûb T ` mM 7Q`Kû2 " /Bp2`b2b i2KTû` im`2b- 2i T ` +QMbû[m T`2bbBQMb~,

i~, /2; `ûb +2MiB; ` /2bX

i

T, i2MbBQM/2H p T2m 2tT BKû22M KBHHBK p p $QHmK2/\ddot{o}mM$; KK2/2 p T2m - 2tT BKû 2M

Т

р

l l		
y ê	8 - y e y	R 38 - y y
kуê	R d - j k y	83-ky
9 y ê	8 j - y y y	k y - 9 y
e y ê	R 9 9 - e y y	d - N e
3 y ê	j 8 k - R y y	j - 9 d
Ryyê	d e y - y y y	R - d y
		_

i`QBb MQK#`2b +Q``2bTQM/ Mb/2 H i`QBbB K2 + G7 +BH2K2Mi H2b +QMbi Mi2b/2 MQi`2 \hat{u} [m iBQM

i 4 UY" HQ;VþUōY"ö HQįXp

LQmb Mö2Mi`2`QMb T b / Mb H2b /ûi BHb /m + H /ûi2`KBM2` +2b [m MiBiûb $^{\sim}$, BH MQmb bm{\` /2 /EbmBp Mi2b $^{\sim}$,

LQmb `2pB2M/`QMbB+B " MQi`2 bmD2i T`B MQmb bQKK2b /ûD" i`QT û+ `iûb- " H TmBbb H +? H2m`X

> 4 kke3- ö 4 RN-e9-" 4 @ Ryyy- "ö 4 j-jy-

b iBb7QMi T bb #H2K2Mi #B2M mt +QM/BiBQMb T`2b Höû[m iBQM

i4 Ukke3 RHyOyyypf URN-e9HYQ-y/jp

 $2\,t\,T\,\dot{}\,B\,K\,2\,/\ddot{o}\,m\,M\,2\,\,K\,\,M\,B\,\,\dot{}\,2\,i\,\dot{}\,b\,@\,\,T\,T\,\dot{}\,Q\,+\,?\,\hat{u}\,2\,\,H\,\,\dot{}\,2\,H\,\,i\,B\,Q\,M\,$ p Q H m K 2 / 2 H $\,$ p $\,T\,2\,m\,\dot{}\,$ 2 i b $\,i\,2\,K\,T\,\hat{u}\,\dot{}\,$ i m $\,\dot{}\,2\,X\,$

PM `2K `[m2` B+B [m2 H [m MiBiû "ö 2bi TQbBiBp2 2 [mBi2M/"+QM}`K2` +2ii2 T`QTQbBiBQM- [m2 H +? H2~mB/2 ûH biB[m2 +`QWi p2+ H2 pQHmK2- K Bb bmBpT2m` TB/2X

+Q`Tb " K BMi2Mm " 8yê " mM +Q`Tb * K BN T `2BHH2 HQB b2` Bi b Mb /Qmi2 7Q`i `2N M2 pQBi T b /2 KQiB7b bm {b Mb π`OBrQ`@Hö `N LQmb HHQMb /Bb+mi2` b `û HBiû T `B;Qm`2mtX AK ;BMQMb [m2 H2b QTû` iB bQB2Mi 2tû+miû2b bm++2bbBp2K2Mi bm` iKQbT?û`B[m2 û; H2b 2M TQB/b 2i 2M pQ"/2b i2KTû` im`2b /Bzû`2Mi2b~c bmTTQb/Bzû`2M+2b /2 /2;`û 2Mi`2 +2b +Q`Tb 2

 $T i 2i / \ddot{o} mi 2^{\circ}, BMbB + 2b + Qib m QM$ / Mb HömM /2b + b- H2b i2KTû` i?nê`12b Ryy ûi Mi BM}MBK2Mi T2iBiV-2i/Mb?XH6 mi`2 [m MiBiû/2 TmBbb M+2 KQi`B+2 T`Q/mBi2 H /Bzû`2M+22Mi`2+2HH2[m27Qm`MBiH +2HH2/QMiBH Mû+2bbBi2 Hö2KTHQB TQ T`BKBiB7X P` +2ii2 /Bzû`2M+2 2bi B+B- + bbm`2`T `mM `BbQMM2K2MibBKTH2[n T b Mû+2bb B`2 /2 /ûi BHH2`- H K K2 / M + b~, BMbB H TmBbb M+2 KQi`B+2 T`Q/r *QKT `QMb K BMi2M Mi 2Mi`2 2HH2b F +? H2m` 2KTHQvû2b / Mb H2b /2mt + bX H [m MiBiû /2 +? H2m` 2KTHQvû2 2bi +2 7Qm`MBi " Hö B` TQm` H2 K BMi2MB` Ryyê T2M/ Mi bQM 2tT MbBQM~c / Mb H2 [m MiBiû/2+? H2m`[m2+2K K2+Q`Tb/QE K BMi2MB' b i2KTû' im'2 "Rê T2M/ Mi n /2 pQHmK2 #bQHmK2Mi b2K#H #H2X aB /2 +? H2m` ûi B2Mi û; H2b 2Mi`2 2HH2b ûpB/2KK2MiH HQB[m2MQmb pQMb/ö #

`B2M M2 T`Qmp2 [möBH 2M bQBi BMbB~c QN +2b [m MiBiûb/2+? H2m`bQMiBMû; H2bX Gö B`- [m2 MQmb bmTTQb2`QMb/ö #Q`/Q #+/U}; X kV 2i b2 i`Qmp2` " H i2KTû` im`2 i`2 K2Mû2 "Q++mT2#2F2602"bT+[+m2û`B`H i2KTû`im`2 Ryyê T `/2mt KQv2Mb/Bzû`2Mib R&PM T2mi Höû+? mz2`/ö #Q`/b Mb 7 B`2 p HmK2-TmBb H2/BH i2`2M K BMi2M Mi b m M /2; ù + Q M b i M i c kêPM T2mi +QKK2M+2` T ` H2 /BH i2`- 2M K +QMbi M+2/2 H i2KTû`im`2-TmBb Höû+? +[mBbbQM MQmp2 mpQHmK2X aQB21Mi#H2b[m MiBiûb/2+? H2m\2KTHQvû2k K2Mi/MbH T`2KB `2/2b/2mtQT#ű02iiBQMböH2b [m MiBiûb/2+? H2m`2KTHQvû2b bm++ $H b2+QM/2^{c}+QKK2H2\hat{b}+Hii\}MH/2+2b$ 2bi H2 K K2- H2b [m MiBiûb / 2 + ? H2m ` 2KTH(/ö mi`2/QBp2Mi i`2û; H2b~, HöQM /QM+

> Y # 4 ö Y #ö-/öQ M ö 4 # #öX

ö2 bi H [m MiBiû /2 +? H2m` Mû+2bb B`2 TQ H2; x /2 Rê "Ryyê- HQ`b[mö賢然7Q++mT2 Hö2] 2bi H [m MiBiû /2 +? H2m` Mû+2bb B`2 TQ H2; x /2 Rê "Ryyê- HQ`b[mö賢素Q++mT2 Hö2] G /2MbBiû /2 Hö B` 2bi KQBM/`2 / Mb H2 [m2 / Mb H2 b2+QM/- 2i /ö T` b H2b 2tTû`B2.2H `Q+?2 2i "û` `//ûD" +Biû2b T ;2 ey- b + H +? H2m` /QBi i`2 mM T2m THmb;` M/2X

G [m MiBibû2 i`Qmp Mi i`2 THmb;` M/2 [m MiB-i#QBi i`2 THmb;#XMB/[m+2QMbû[m2M2M;ûMû` HBb MiH T`QTQbBiBQM-MQmbG [m MiBiû/2+? H2m`/m2 m+? M;2K

.m `2bi2- H /Bzû`2M+2/QBi i`27Q`iT2 MmHH2 bB H + T +Biû /2 Hö B` TQm` H +QMbi Mi2- K H;`û H2b +? M;2K2Mib/2/2 2tTû`B2M+2b/2JJX.2H `Q+?22i "û` `/-

TQbbû/û H2b /2; `ûb RyRê 2i RyyêX

BMbB-mM2 [m MiBiû/QMMû2/2+? H2m/2 TmBbb M+2 KQi`B+2 2M T bb Mi/ömM + "mM mi`2 K BMi2Mm" yê- [m2 bB +2b/2r

p `B2 T2m- bB T2m K K2- [m2 H2b /Bzû`2
TQm`` B2Mi " H `B;m2m` i`2 ii`B#mû2

/öQ#b2`p iBQM-Qm "[m2H[m2b+B`+QMbi M-Mû;HB;û/2i2MB`+QKTi2X

LQmb bQKK2b ?Q`b /öûi i /2 /ûi2`KBM2``K2Mi- p2+ H2b b2mH2b /QMMû2b 2tTû`BK2TQbbû/QMb- H HQB bmBp Mi H [m2HH2 p `Bi`B+2 /2 H +? H2m` / Mb H2b /Bzû`2Mib /2;`i?2`KQKûi`B[m2X *2ii2 HQB 2bi HBû2 " +2HH/2 H +? H2m` bTû+B}[m2 /2b; x " /Bp2`b2b i

 $HQB[m2H\ddot{o}2tT\hat{u}B2M+2M\ddot{o}Tb2M+Q^27bm{bMi22t}^{k}Bim/2X$

2 M H M; ; 2 H; û # `B[m2X

aQBH [m MiBiû /2 TmBbb M+2 KQi`B+2 T`Q/mBi

/`4 T/pX X X URVX

amTTQbQMb H i2KTû`im`2 +QMbi Mi2 bQmb H [mû; H2i/2;`ûb +2MiB;` /2b~, bE[HöQQ\MM2Q&KK2biB[m2 Hö B`Q++mT Mi H2 pQHmK2 mM HBii-2QM k\K-2 i2 /ö T`b H HQB/2 J`BQii2-

pi[T-/öQTM4[fpX

aB K BMi2M Mi S 2bi H $7Q^+2$ ûH biB[m2 /2 +2 K iQmDQm^b H2 pQHmK2 R- K Bb " H i2KTû` im^2 y H $^+$; H2 /2 JX : v@Gmbb +-

[4 S Y Sifked & Sfked Ukiel/d-Y/öQ[M]p4 T4 USfked V U U W fe\d\X

a B - T Q m ' # 'û; 2 ' - H ö Q M M Q K KS2 2 k le dH H[ömû [Mhi B BûQ M / 2 p B 2 M / $^{\sim}$,

T4 LUiMkedpW-

/öQM HöQM iB`2-/ö T` b Höû[m iBQM URV-

/ \ 4 L Ui W k e d \ p\ W/pX

_2; `/QMb+QKK2 +QMbi Mi-2i T`2MQMb HöBMiû;` H2 K2K#`2b-MQmb m`QMb

`4 L WY kedHVQ;Yp*X

aB H ö Q M b`n4 TyT HQ Q 2bp 4n R - Q M m ` * 4 y ~ c

/öQ`M4 L WY kedHVQ;XpX X UkVX

*ö2bi H" H TmBbb M+2 KQi`B+2 T`Q/mBi2 T ` Hö2tT M bQmb H i2KTiû` Tmb &û /m pQHmK2 RpX m pQHmK2

aB- m HB2m / öQTû`2` iH QiM2KQTTû``2m/ ö2n M2 K MB `2 #bQHmK2Mib2K#H#H2"iHY/ii2KHT ûTmiBnb 12 M+2/ûp2@ HQTTû2 b2`

`Y `4 L WY/iY kedHVQ;Xp

_2i` M+? Mi Höû[m iBQM UkV-BH pB2Mi

`4 L H Q; p XX XX U j V

aQBiH [m MiBiû /2 +? H2m` 2KTHQvû2 "K BMi2MB` H /m ; x " m M /2; `û + Q M b i M i T 2 M / M i b / B H i i B Q M ~ , BbQMM2K2Mi /2 H`bT2`; 2H9yFmBbb M+2 /ûp2HQTTû2 7 +?mi2/2H [n2/12/1i+B?iûH2m`/miY2i`m /2;iXiaB MQmb MQKKQmHbTmBbb M+2KQi`B+2/ûp2HQTTû2T `H +?m /2 + ? H 2 m ` / m / m2 / 2û; `û y ê - + Q K K 2 - / ö T ` b H 2 T ` B M + B T 2 û i # H B T ; X j 3 - + 2 i irî2 / [QmB i M/ i û BTi 2 i M / 2 m M B [-m22HKH2 2M i / 2 TQm`` i`2 `2T`ûb2Miû2 Ti-`/HöQ7MQnhJX4iBQM 6

GQ b [inb 20 + + QWi 2ii M2 p iB-2 n M2 ip B 2 m MY /-m / öQM ~,

m Y / # 16 U Y / W

_2i` M+? Mi Höû[m iBQM T`û+û/2Mi2-BH pB2Mi

/m4 6 U Y / V 6 i 4 6 ö i X / i X

H +?mi2/ömM2 mMBiû/2 +i?Y Hi2mm / 2 mi X 2; `û aB H [m MiBiû/2 +? H2m`- m HB2m / 2-b`2 mM2 TmBbb M+2 KQi`B+2 T`Q/mBi2 m` Bi 2m TQm` p H

*ö2bi ûpB/2KK2Mi H" H [m MiBiû /2 TmBbb M+2 K

2/m4 26 öi X/X X X U 9 V X

J B $12/m^2$ b i H K K 2 + ? Q $52/m^2$ [$60/m^2$ i 2 b / 2 m t b Q M i H T m B / $12/m^2$ j $12/m^2$ j 12/m

2/m 4 \ c

2i- " + mb2/2b û[m iBQMbj-9-

26 ö X / 4 L H Q; p X / i

Qm-/BpBb MXATi `6ö

2 4 Uf 6 öMH Q;4ph H Q; p

2 M M Q K K M i h H 7L i f 6 + öv/B [Qn N/B 12] b i m M 2 7 Qb M 2+mi B Q M / 2 G ö û [m i B Q M ~ ,

2 4 hHQ; p

2bi Hö2tT`2bbBQM M HviB[m2 /2 H HQB ûMQM+û2 +QKKmM2 $^{\circ}$ iQmb H2b ; x-TmBb[m2 H2b HQBb /QMi MCbQMi +QKKmM2b $^{\circ}$ iQmbX

a B H ö Q M Mb/HQ K [M m2 M i B i û /2 +? H 2 m ` M û + 2 b b B ` 2 T Q m H ö B ` b m ` H 2 [m 2 H M Q m b p Q M 2 b i Q 2 T M û 2 K m î Q p M 2 i 2 K m î Q 2 i 2 M 2 M 2 y ê m p Q M 2 i 2 K T û ` i - i M ` 2 B z û ` 2 M + 5 2 i 2 M 2 M 2 ` 2 H [m M i B i û / 2 + ? H 2 m ` M û + 2 b b B ` 2 T Q m ` R X 2 M 2 ` H ö B / m / 2 ; ` û y b 2 ` m M 2 7 Q M + i B Q M , [Q n M 2 H M A M [M 2 / 2

b4 2Y I 4 h HQ;YpIX

aB HöQM /Bzû`2M+B2 +2ii2 û[mi bi200M-T2ì [mT2T 1000 Q'M `2T`ûb2Mi1207ilö H2b +Q2{+B2Mib /B102MiBB10Hb /2pB2M/`

/bf/i4 höHQ;Yplö X X X U8VX

h 4 *i Y *~ c

K Bb + QKK2Llf64öQM

6 ä 4 Lfh 4 LftiY* V

Jm HiBTHB Mi/2 T `i 2 ¼ i/ ö2 imB M2 i ŪT; " Mi-BH pB2 Mi

6i 4 ULf*VHQU†Y*RVY*kc

Qm-2M+? M;2 Mi/2+QMbi Mi2b `#Bi` B`2b-2i `2 [m2i62bi MmH HiQ+`yb@m2

6i 4 HQ; URifYVVV X~X~XUeVX

G M im 2 / 2 H 7 QbM2+ii BQQmMp18 Bi BMbB/ûi2 KBMû2

p2`` Bi T `@ H" 2 M ûi i /öûp Hm2` H TmBbb M+2 KemM2 +?mi2 [m2H+QM[m2/2 H +? H2m`X J Bb +2ii 2bi 7 Q M/û 2 bm` Hö?vTQi? b2/2 H +QMbi M+2/2/ömM; x [mB M2 +? M; 2 T b /2 pQHmK2-?vTQi? b2 Mö T b 2 M+Q` 2 bb2x #B2M pû`B}û Hö2t +iBim/T`2mp2-MQi` 2û[m iBQM UeV K2 T2mi i` 2 /KBb2[i

. $Mb H\ddot{o}\hat{u}[m iBQM U8V-H2 T`2KB2` K2K#`2`2T`\hat{u}H\ddot{o}pQMb`2K`[m\hat{u}-H+? H2m`bT\hat{u}+B}[m2/2 H\ddot{o}EpX G\ddot{o}2tT\hat{u}B2M+2 v Mi TT`Bb [m2+2ii2+? H2m`p+? M;2K2Mib bb2x+QMbB/<math>\hat{u}$ "#H2b/2pQHmK2-BHb \ddot{o} /2HQ;bpQBi mM2 [m MiBi \hat{u} 7Q`i T2iBi2X aB QM H [m \ddot{o} T` b pQB` Km/H i+B \ddot{o} T \ddot{u} H \ddot{o} B \ddot{u}

hö 4 y -

Kû/BQ+`2/2Höû+?2HH2i?2`KQKûi`B[m2X

QM 2M T`2MM2 HöBMiû; `H2-QM i`Qmp2

h 4 * [m MiBiû + Q M bi Mi2~c K B b h 4 L f 6 öd / ö Q Mi 6 ü L f h 4 L f * 4 ~ c

/öQM HöQM iB`2 2M}M- T ` mM2 b2+QM/2 BMiû;` iE

LQmb+?2`+?2`QMbB+B " ûp Hm2`/ömM2K TmBbb M+2 KQi`B+2 /2 H +? H2m`~c 2i }M / T`QTQbBiBQM 7QM/ K2Mi H2- \ \ M /2 pû\ \ B\ \ 2 2 M ¾ mp`2 TQm``û HBb2` H TmBbb M+2 KQi` BM/Bzû`2Mi- `2H iBp2K2Mi " H [m MiBiû /2 + MQmb 2M +?QBbB`QMb bm++2bbBp2K2Mi Th bT?û`B[m2-H p T2m`/ö2 m-H p T2m`/ö H+ amTTQbQMb [m2 HöQM 2KTHQB2 /ö #Q`/ `B[m2-HöQTû`iBQMb2+QM/mB`/öT`bH T; X i N X L Q m b 72 `Q M b H 2 b ? v T Q i ? b 2 b b m B p Gö B` 2bi T`Bb bQmb H T`2bbBQM iKQb i2KTû`im`2/m +Q`Tb 2bimM KBHHB K2/2/2 /2 yê-+2HH2/m +Q`Tb " 2bi yêX G /Bzû`2M+ pQBi7Q`iT2iBi2-+B`+QMbi M+2 Mû+2bb B`2 Gö ++`QBbb2K2Mi /2 pQHmK2 /QMMû " Hö QTû`iBQMb2` RfRReYRfked/mpQHmK2T`B ++`QBbb2K2Mi7Q`iT2iBi- #bQHmK2MiT`I `2H iBp2K2Mi " H /Bzû`2M+2 /2b i2KTû` im +Q`Tb 2i"X

6i 4 i Y "X

*QKK2i64 y - HQ`b [4my2- " 2 b i Mm H~, BMbB

6i 4 i -

+ö2bi@"@/B`2 [m2 H TmBbb M+2 KQi`B+2 T`Q/mBi2 2t +i2K2Mi T`QTQ`iBQMM2HH2 " H +?mi2 /m + HQ`E i` /m+iBQM M HviB[m2/2+2 [m2 MQmb pQMb/BiT;2 G TmBbb M+2 KQi`B+2 /ûp2HQTTû2 T

/2mt QTû` iBQMb /û+`Bi2b T ;X jNX b2` -T`QTQ`iBQMM2HH2 "Hö ++`QBbb2K2Mi/ `2M+2 2Mi`2 H2b /2mt T`2bbBQMb 2t2`+û2 b2 i`Qmp2 mt i2KTû` im`2b yê-yyR 2i yêX 2bi-/ö T`bH `;H2/2JX: v@Gmbb +- Rf H 7Q`+2ûH biB[m2/m; x-Qm"i` b@T2m /2 H T`2bbBQM iKQbT?û`B[m2X G T`2bbBQM iKQbT?û`B[m27 Biû[mB| Ry K i`2b 9fRyy /2 ? mi2m` /ö2 m~c Rfl /2 +2ii2 T`2bbBQM û[mBp mi " Rfkedyyy X ? mi2m`/ö2 mX Zm Mi "Hö ++`QBbb2K2Mi/2 pQHmK2bBiBQM-RfRReYRfked/mpQHmK2 T`BKE pQHmK2Q++mTûT `mMFBHQ; `KK2/öB Hö B`~, BMbB/QM+H2T`Q/mBi URfRReYRfkedV~y-dd~Rfkedyyy~R

2tT`BK2` H TmBbb M+2 KQi`B+2 /ûp2H0 b M+2 2bi 2biBKû2 B+B 2M K i`2b +m#2b K i`2 /2 ? mi2m`X

aB HöQM 2tû+mi2 H2b KmHiBTHB+ iBQM TQm`p H2m`/m T`Q/mBiy-yyyyyjdkX *?2`+?QMb K BMi2M Mi "ûp Hm2`H [m 2KTHQvû2 "/QMM2`+2 `ûbmHi i- +ö2bi@"

+? H2m` T bbû2/m + Q` Tb m + Q` Tb "X G2 + Q` Tb 7 Qm` MBi

R FBHQ;` KK2 /ö B` /2 yê " yê-yyR~ c kêkê G [m MiBiû Mû+2bb B`2 TQm` K BMi2M yê-yyR H i2KTû` im`2 /2 Hö B` HQ`b[möB /BH i iBQM /2 RfRReYRfked

G T`2KB `2 /2 +2b [m MiBiûb /2 +? H2m` ûi fT `` TTQ`i " H b2+QM/2- MQmb H Mû;HB;2` 2bi- /ö T` b H2` BbQMM2K2Mi /2 H T ;X 99- 6b2` Bi Mû+2bb B`2 TQm` ++`QWi`2 /2 Rê H FBHQ;X /ö B` bQmKBb " H T`2bbBQM iKQbT .ö T` b H2b 2tTû`B2M+2b /2 JJX .2H `Q+?2bm` H +? H2m` bTû+B}[m2 /2b; x-+2HH2 /2û; mt-y-ked /2 +2HH2 /2 Hö2 mX aB /QM+ MQmMBiû /2 +? H2m` H [m MiBiû Mû+2bb B`2 TmM FBHQ;` KK2 /ö 2 m-+2HH2 [mB b2` Mû+2 /2 Rê mM FBHQ;` KK2 /ö B` m` TQm` p H2m H [m MiBiû /2 +? H2m` 7Qm` MB2 T ` H2 +Q` T

R&RêH +? H2m`Mû+2bb B`2 TQm`TQ`i2`H

y-ked mMBiûbX

*Ö2bi H" H + ? H2m` + T #H2/2 T`Q/mB`2 y-yy/2 TmBbb M+2 KQi`B+2 T `b +?mi2/2 yêyyR SQm`mM2 +?mi2 KBHH2 7QBb mbbB;` M/2/2 Rê- H TmBbb M+2 KQi`B+2 T`Q/mBi2 b2` Ryyy 7QBb H T`2KB `2 Qm

y-yyjdkX

aB K BMi2M Mi- m HB2m /2 y-ked mMBiûb /2 2KTHQvQMb Ryyy mMBiûb- H TmBbb M+2 KQ /QMMû2 T ` H T`QTQ`iBQM y-ked~, y-yyyjdk~, ~t-, Ryyy~, /öQM t 4 jdkfked 4 R-jN8 mMBiûbX

BMbB Ryyy mMBiûb / 2 + ? H2m`- T bb Mi / 6 " H i2KTû` im` 2 Rê " mM mi` 2 +Q`Tb K i2KTû` im` 2 yê- T`Q/mB`QMi- 2M ;Bbb Mi

LQmb HHQMb +QKT `2` +2 `ûbmHi i " + Hö +iBQM /2 H +? H2m` bm` H p T2m` /ö2

R-jN8 mMBiûb / 2 TmBbb M+2 KQi`E

amTTQbQMb R FBHQ; KK2/ö2 m HB[mBH + T + Biû + v H + B + M]; B [9m 22 Mi 2 H + 22 i 7 + Q 2 M]

TBbi + Q M b m b b B H ö 2 t B b i 2 M + 2

"- K BMi 2 M m b + ? + m M m M 2 i 2 K Tû i m 2

/ 2 û i M i û H 2 p û 2 m @ / 2 b b m b / 2 + 2 H H 2 / 2

i û 7 Q i T2 i B i 2 X 6 B; m Q M b @ M Q m b K B M i 2 b m B p M i 2 b m

*QMi +i/2 Hö2 m p2 + H2 +Q`Tb - T b
/2 H TQb+B'iBHQ MQb 1877BQQ M iBQM/2 H p T
" H i2 KTû` im`2 /m +Q`Tb TQm``2 KTH
[m2 H /QMM2 HB2 m Hö2 ti2 MbBQM/2 H +
TQb2`QMb H #277b + B kû;` M/2 TQm` [m2 i
Hö2 m v bQBi +QMi2 Mm2 "úH-böQiB;iM/2 Kp2 M/2

/m +Q`Tb - +QMi +i /2 H p T2m` p2+ T`û+BTBi iBQM /ömM2 T `iB2 /2 +2ii2 p K2Mi /2 b 7Q`+2 ûH biB[m2- `22i7Qkh\`/m

$HB[mû7 + iBQM / m ^2bi2 / 2 H p T2m H T^2bbBQM + QK#BMû2 p2 + H2 + QMi$

úHQB;M2K2Mi/m+Q`Tb "- MQmp2 m +

p2+ H2 +Q`Tb - `2iQm` /2 Hö2 m " H i2KTi +Q`Tb- `2MQmp2HH2K2Mi /2 H T`2KB `2 T bmBi2X

G [m MiBiû /2 TmBbb M+2 KQi`B+2 /ûp2HQ+2`+H2+QKTH2i /öQTû` iBQMb 2bi K2bm`û2pQHmK2 /2 H p T2m` KmHiBTHBû T ` H /Bzii2MbBQMb [mö2HH2 TQbb /2 " H i2KTû` im`2+2HH2 /m +Q`Tb "X

/m +Q`Tb " NNê~, H /Bzû`2M+2/2b i2MbBQN H i #H2/2 JX . HiQM- ke KBHHBK i`2b/2 K2` K i`2b/2 ? mi2m`/ö2 mX

G2 pQHmK2 Q++mTû T ` H p T2m` 2bi Rdy; Hö2 mX aB MQmb QTû`QMb bm` mM FBHQ;` HBi`2b Qm R-dyy K i`2b +m#2bX

BMbB H TmBbb M+2 KQi $B+2/\hat{u}p2HQTT\hat{u}2$ TQ/mBi

R @R - dyy "y - je 4 y - e R R m M B i û b

/2 Hö2bT +2 /QMi MQmb pQMb 7 Bi mb ;2 T`û G [m MiBiû /2 +? H2m` 2KTHQvû2 2bi H | +2bb B`2 TQm` i` Mb7Q`K2` 2M p T2m` Hö2 i RyyêX *2ii2 [m MiBiû 2bi /QMMû2 T ` Hö2tTû Hö2KTHQB / 2 88 y m M B i û b / 2 + ? H 2 m ` X

88y / 2 M Q b m M B i û b / 2 + ? H 2 m ` X

i`Qmpû2 û; H2 "88yê-Qm-TQm`T `H2`T

BMbB y-eRR mMBiûb /2 TmBbb M+2 KC

G [m MiBiû /2 TmBbb M+2 KQi`B+2 `ûbmMBiûb /2 +? H2m`b2` /QMMû2 T ` H T`

88y~, y-eRR~,~t,-~RöyQyM,t 4 eRRf88y 4 R-R

BMbB Ryyy mMBiûb / 2 + ? H2m`i` MbTQ`iú i2Mm "Ryyê "mM mi`2 + Q`Tb K BMi2Mm " 2M; Bbb Mibm` H p T2m`/ö2 m-R-RRkm KQi^B+2X G2 MQK#`2 R-RRk /Bz `2 /2 Rf9 2MpB` R-jN8-iQmpûTù+û/2KK2MiTQmHPH2KQi`B+2/ûp2HQTTû2T `RyyymMBiûb/2+ Hö B`- K Bb BH 7 mi Q#b2`p2` [m2 / Mb +2 /2b + Q`Tb 2i " ûi B2Mi Rê 2i yê - i M/Bb [Ryyê 2i NNêX G /Bzû`2M+2 2bi #B2M H M 2 b 2 i `Q m p 2 T b " H K K 2 ? m i 2 m ` / M b KQKûi`B[m2X AH m` Bi 7 HHm- TQm` 7 B $2t + i2 - \hat{up} + m2$ H TmBbb M+2 KQi B+2 p T2m 7Q Kû2 "Rê 2i +QM/2Mbû2 "yê c Qmi'2 TQmpQB' +QMMQWi'2 H [m MiBiû / Mb H p T2m`7Q`Kû2 "RêX G HQB/m2 "JJX *HûK2Mi 2i .ûbQ`K2b-+B@/2bbmb-T;Xee-MQmb7Qm`MBi+2i +QMbiBim Mi2/2H p T2m`/ö2 m ûi MiiQ [m2H[m2i2KTû`im`2[m2H p TQ`Bb iBQ 88y /2;`ûb /2 +? H2m` TQm` p TQ`Bb2` Hö2 m Ryyê-BH2M7 m/` 88y Y Ryy QM e8y TQm` p T TQB/b /ö2 m T`Bb2 yêX

1M 7 Bb Mi mb; 2 /2 +2ii2 /QMMû2 2i `/ö BHH2m`b #bQHmK2Mi +QKK2 MQmb Hö po "Ryyê-HöQMi`Qmp2-BMbB[möBH2bi7+B

R-kNy

TQm` H TmBbb M+2 KQi`B+2 /ûp2HQTTû2 T +? H2m` ;Bbb Mi bm` H p T2m` /ö2 m 2Mi`2 *2 MQK#`2 b2 ` TT`Q+?2 THmb [m2 H2 T`2K

R - j N 8

AH Mö2M /Bz `2 THmb [m2 /2 RfRj- 2``2m` [m /2b HBKBi2b T`ûbmK #H2b-2mû; `/ m;` M/M Mû2b /2 /Bp2`b2b 2bT +2b /Q Mi MQmb pQ Mb i mb ;2 TQm` ``Bp2` "+2` TT`Q+?2K2MiX Bpû`B}û2- / Mb mM + b T `iB+mHB2`* XMQi`2 HQ LQmb 2t KBM2`QMb mM mi`2 + b- +2HmB (H +? H2m`bm` H p T2m`/ö H+QQHX

G2b `BbQMM2K2Mib bQMiB+B #bQHmK2NTQm`H p T2m `/ \ddot{o} 2 m \ddot{c} H2b /QMM \dot{u} 2b b2mH2

kjXPM i`QmpM2MUH2b /2 +?BKB2 2i-/20mTB?NH bH2E[mR23R3-T;X kN9V / Mb mM JûKQB`2 /2 JX S2iBi mM2 ûp Hn TmBbb M+2 KQi`B+2/2 H +? H2m` TTHB[mû2"Hö B`*2ii2 ûp Hm iBQM +QM/mBi" ii`B#m2` Hö B` iKQbT?p Mi;2~c K Bb 2HH2 2bi/m2 mM2 Kûi?Q/2 iQmi@"@/2 +QMbB/û`2`Hö +iBQM/2 H +? H2m`X

Gö H+QQHTm`#QmibQmbH T`2bbBQM

k9XJX . HiQM p Bi + `m T2` + 2pQB` [m2 H2b p T2m` b "/2b/Bbi M+2bi?2`KQKûi`B[m2bû; H2b/m TQBM b B2Mi/2 i2MbBQMb û; H2b~c K Bb +2ii2 HQB Mö 2t +i2- 2HH2 Mö2bi [mö TT`QtBK iBp2X AH 2M 2bi T`QTQ`iBQMM HBiû/2 H +? H2m` H i2Mi2/2bp T2 UoX 1ti` Bib / öm M J û K Q B ` 2 / 2 JNXKM* XH 22bb /T2 2Ti2bv b B [m 2i / 2 + ? B K CB K 2 Re - TX Ry 8 - 2i i Q K 2 k 9 - TX j k j X V G 2 +2;2M\2 b2 HB2Mi /2 T\b p2+ +2HH2b /2H TmBb $hQmi^{\circ}u+2KK2MiJJX > . pv 2i6^{\circ}/v-T^{\circ}b pQB^{\circ}7$ 2tTû`B2M+2b bm` H HB[mû7 + iBQM /2b; x- T ` F +QMbB/û` #H2-QMi +?2`+?û " `2+QMM Wi`2 H2b + /2 +2b; x HB[mû}2b TQm\ /2 Hû;2\b +? M;2K2Mib / p B2Mi 2M pm2 Hö TTHB+ iBQM /2b MQmp2 mt HE /2 H TmBbb M+2 KQMBH+1212xbU/~2bX+?BKB2 2i-/2 T?v D MpB2` R3k9- TX 3yX~V . ö T` b H i?ûQ`B2 + B@/2 T`ûpQB` [m2 Hö2KTHQB /2 +2b HB[mB/2b M2 T`ûb; `2H iBp2K2Mi "Höû+QMQKB2/2H +? H2m`X G2b b2 `2M+QMi`2` [m2 / Mb H # bb2 i2KTû` im`2- " TQbbB#H2/ö;B`-2i/MbH2bbQm`+2bQM-T`+2i TQbbB#H2/2TmBb2`bH2P++HQ`B[m2~,(

aB HöQM 7 Bi mb ;2 /2 +2b /QMMû2b- HöQ ;Bbb Mi bm` mM FBHQ;` KK2 /ö H+QQH mt d3 \hat{e} -d2idd \hat{e} -d-H TmBbb M+2 KQi`B+2 / \hat{u} p2H mMBi \hat{u} bX

1 H H 2 `û b m H i 2 / 2 H ö 2 K T H Q B / 2 k y d m M B i û b R y y y m M B i û b B H 7 m i T Q b 2 ` H T ` Q T Q ` i B Q M

kyd~, y-k89~,,tRyj j Qq~M,R-kjyX

*2 MQK#`2 2bi mM T2m THmb 7Q`i [m2 R-RR Hö2KTHQB /2 H p T2m` /ö2 m mt i2KTû` i1NNêX J Bb bB HöQM bmTTQb2 H p T2m` /ö2i2KTû` im`2b d3ê 2i ddê-QM i`Qmp2-2M 7 Bb HQB /2 JJX *HûK2Mi 2i .ûbQ`K2b-R-kRk TQm KQi`B+2 /m2 "Ryyy mMBiûb /2 +? H2m`X *2 /b2` TT`Q+?2-+QKK2 QM pQBi-#2 m+QmT /2/Bz `2 [m2 /2 Rf8vX

LQmb m`BQMb /ûbB`û TQmpQB` 7 B`2 /ö r K2Mib /2 +2;2M`2-TQmpQB` + H+mH2`-T ` 2 b M+2 KQi`B+2 /ûp2HQTTû2 T ` Hö +iBQM /2 /2b bQHB/2b 2i /2b HB[mB/2b-T ` H +QM;û 2i+X~c K Bb H T?vbB[m2 +im2HH2 MQmb ` 2 Mû+2b b8XBG2bHQB 7QM/ K2Mi H2 [m2 MQmb p /2 +QM}`K2` MQmb b2K#H2` Bi 2tB;2` +2T2M KBb2 ?Q`b /2 /Qmi2- /2b pû`B}+ iBQMb MQm

k8X*2HH2b [mB MQmb K M[m2Mi bQMi H 7Q`+22tT Mb H2b bQHB/2b 2i H2b HB[mB/2b T ` mM ++`QBbb2K2M im`2-2i H [m MiBiû /2 +? H2m` #bQ`#û2 Qm # M/Q +? M;2K2Mib /2 pQHmK2 /2 +2b +Q`TbX

TmBbb M+2 KQi`B+2/2 H +? H2m`X

bbBb2 bm` H i?ûQ`B2 /2 H +? H2m` i2H mDQm`/ö?mB- 2i- BH 7 mi Hö pQm2`- +2i T b /ömM2 bQHB/Biû BMû#` MH #H2X .2b TQm`` B2Mi b2mH2b /û+B/2` H [m2biBQM MQmb Q++mT2`QMb /ö TTHB[m2` H2b B/û:2tTQbû2b- 2M H2b `2; `/ Mi +QKK2 2t +i2b/Bp2`b KQv2Mb T`QTQbûb Dmb[mö" T`ûb2

G ö Q M [m2H[m27QBb T`QTQbû /2 /ûp2

b M+2 KQi`B+2 T ` Hö +iBQM /2 H +? H bQHB/2bXG K MB `2/2T`Q+û/2`[mBb2] im`2HH2K2Mi "Hö2bT`Bi2bi/2}t2`BMp ` bQHB/2- mM2 # ``2 Kûi HHB[m2- T ` 2t2K b2b 2ti`ûKBiûb~c/ö ii +?2` Hö mi`2 2ti`ûk KQ#BH2/2K +?BM2~c TmBb-T \ /2b \ \ \ \ \ + ? `27`QB/Bbb2K2Mib bm++2bbB7b-/2 7 B`2 H # ``2 2i /2 T`Q/mB`2 BMbB/2b KQmp2K 1bb vQMb/2 Dm;2`bB+2ii2 K MB `2/2/û b M+2 KQi`B+2 T2mi i`2 p Mi;2mb2X LQ [m2 H2 + ` +i `2 /m K2BHH2m` 2KTHQB / T`Q/m+iBQM/m KQmp2K2Mi ûi Bi[m2iQm /2 i2KTû` im`2 bm`p2Mmb / Mb H2b +Q`Tb +? M; 2K2Mib / 2 pQHmK2X SHmb QM TT`(+2ii2 +QM/BiBQM-2i KB2mt H +? H2m`b QTû` Mi/2 H K MB `2 [mB pB2Mi/ö i`2/û· HQBM /2 `2KTHB` H +QM/BiBQM /QMi BH ; 2K2Mi /2 i2KTû` im`2 Mö2bi /? B+B " mM pQHmK2~,iQmbbQMi/mb mt+QMi +ib/2 û+? mzûb- m +QMi +i/2 H # ``2 Kûi HHB

+Q`Tb +? `;û /2 HmB 7Qm`MB` H +? H2m`- b +? `;û /2 H HmB 2MH2p2`X G2 b2mH KQv2M /2 `2KTHB` H +QM/BiBQM /ö ; B`bm`H2+Q`TbbQHB/2 #bQHmK2Mi-+C 7 Bi bm` Hö B` / Mb H2b QTû` iBQMb /û+`Bi2 7 m/` BiTQm`+2H TQmpQB`T`Q/mB`2T `H2 /2 pQHmK2/m +Q`Tb bQHB/2/2b +? M;2K2Mi /2 i2KTû` im`2- bB /m KQBMb HöQM pQmH +?mi2b +QMbB/û` #H2b/m + HQ`B[m2~, Q`+ BKT iB + #H2X SHmbB2m b + QMbB/û iBQMb"T2Mb2`[m2 H2b +? M;2K2Mib QTû`ûb / Mb H /2b +Q`Tb bQHB/2b Qm HB[mB/2b T ` Hö2z2i 2i/2 H ` `û7 +iBQM b2` B2Mi bb2x 7 B#H2b R&GÖQM Q#b2`p2 bQmp2Mi / Mb H2b K +?B K +?BM2b "72m T `iB+mHB `2K2MiV /2b TE bmTTQ`i2Mi /2b 2zQ`ib i` b@+QMbB/û` #H mM b2Mb- i Mi¬i / Mb Hö mi`2- 2i [mQB[m bQB2Mi [m2H[m27QBb mbbB; M/b [m2] M im² /2b bm#bi M+2b KBb2b 2M ³/₄mp²-/2 i2KTû` im`2 bQMi T2m b2MbB#H2bX kê Mb Hö +iBQM /2 7` TT2` H2b Kû/ BHH2b. H KBMQB`- /2 H }HB `2- H2b Kûi mt bm# M/2 +QKT`2bbBQM [m2 MQb KQv2Mb MQ /2 H2m` 7 B`2 ûT`Qmp2` 2M 2KTHQv Mi H2 /m`b 2i H2b THmb `ûbBbi MbX *2T2M/ Mi i2KTû`im`2 Mö2biT b + QMbB/û` #H2~, bB TB +2b /ö +B2` /QMi QM 7 Bi mb ;2 / Mb + b2\ B2Mi #B2Mi¬i/ûi\2KTû2bX

jêPM b Bi [möBH 7 m/` Bi 2t2`+2` bm` H
HB[mB/2b mM i` b@;` M/ 2zQ`i TQm` T`(

```
`û/m+iBQM /2 pQHmK2 +QKT ` #H2 " +2
ûT`Qmp2` H2`27`QB/Bbb2K2Mi UmM `27
" yê- T ` 2t2KTH2VX P` H2 `27`QB/Bbb
bmTT`2bbBQM /2 + HQ`B[m2 THmb;` M/
H bBKTH2`û/m+iBQM /2 pQHmK2X aB +
T`Q/mBi2 T ` mM KQv2M Kû+ MB[m2- H
M2 TQm`` Bi /QM+ T b 7 B`2 p `B2` H
+Q`Tb /ö mi Mi /2 /2;`ûb [m2 H2 7 Bi H2
1HH2 Mû+2bbBi2` Bi +2T2M/ Mi Hö2KTH
b?`i` b@+QMbB/û` #H2X
```

SmBb[m2 H2b +Q`Tb bQHB/2b bQMi bmb+2
;2K2Mi /2 i2KTû` im`2 T ` H2b +? M;2K2M
TmBb[m2 /ö BHH2m`b H +QM/BiBQM /m F
+? H2m` m /ûp2HQTT2K2Mi /2 H TmBbb
T`û+BbûK2Mi [m2 iQmi +? M;2K2Mi /2 i2K²
" mM +? M;2K2Mi /2 pQHmK2- H2b +Q`Tb
T2m T`QT`2b "`û HBb2` +2ii2 TmBbb M+2

H2b K K2b ` BbQMb T2mp2Mi i`2/QMMû2 2KTHQB

G2b+Q`TbHB[mB/2bbQMi #bQHmK2Mi

LQmb M2 T `HQMb T b B+B/2b/B{+mHiû b2` B2Mi b Mb MQK#`2X G2b KQmp2K2Mi

keX.2b 2tTû`B2M+2b `û+2Mi2b /2 JX P2`bi2/bm` H

Hö2 m Q Mi 7 Bi p Q B` [m2-TQm` m M2 T`2bbBQM /2 Tû` im`2 /2 +2 HB[mB/2 MöûT`Qmp Bi T b /2 +? M; UoQ W M H2b /2 T?vbB[m2-27iû/p2` B2B R B & j-TX R N k X \

+QKTHB[mûb~cBH7 m/\ Bi2KTHQv2\/2bKi ; M/2 7Q +2 TQm i MbK2ii 2 /2b T 2bbBQ 2M \ M H 2b Q T û \ i B Q M b b m + + 2 b b B p 2 b b ö 2 t û + r +QmT /2 H2Mi2m`- +QKT `û2b " +2HH2b /2 H Q`/BM B`2-/2 bQ`i2 [m2/2b TT `2BHb/2;` M 2i / ö m M T ` B t + Q M b B / û ` # H 2 M 2 T ` Q / m B ` B 2 N /2 Kû/BQ+`2b 2z2ibX $G2b \sim mB/2b$ ûH biB[m2b-; x Qm p T2m`b-`Bi #H2b BMbi`mK2Mib TT`QT`Bûb m /ûp2F TmBbb M+2 KQiB+2 /2 +? H2mX AHb ûmM+QM/BiBQMb Mû+2bb B`2b TQm` #B2M `2KT bQMi7 +BH2b " +QKT`BK2`- BHb DQmBbb2M /Bbi2M/\2 T\2b[m2 BM\MBK2Mi~c H2b p \B i Q + + bBQM2Mi + ?2x 2mt /2 ; M/b + ? M; 2K2Mim`2~c 2M}M BHb bQMi i` b@KQ#BH2b-7 + "`27`QB/B`T`QKTi2K2Mi-7 +BH2b "i` MbTC mM mi²-+2 [mB/QMM2 H 7 +mHiû/2 H2m TB/2K2Mi H2b 2z2ib [m2 HöQM ii2M//ö2mt Pm T2mi BbûK2Mi +QM+2pQB` mM2 7QmH T`QT`2b"/ûp2HQTT2`H TmBbb M+2KQi`B+2 Hö2KTHQB/2b~mB/2b ûH biB[m2b~c K Bb/2 [m2 HöQM böv T`2MM2-BH M2 7 mi T b T2`

T`BM+BT2b bmBp Mb~,

/BH i iBQM 2i H +QKT`2bbBQM /2b +Q`Tb bQł TQm`` B2Mi i`2 [m2 7Q`i T2iBib~c QM b2 p2` H2m` /QMM2` /2 Hö2ti2MbBQM - /2 7 B`2 mb ; /2 TmBbb M+2 KQi $^{\circ}$ B+2X

mbbB HQBM [m2 TQbbB#H2X

+?mi2/2 + HQ`B[m2-2iT `bmBi2 mM2;

kêS ` H K K2 ` BbQM H2 `27`QB/Bbb2K2N

jêAH 7 mi 7 B`2 2M bQ`i2 [m2 H2 T bb ;2 /
 /2 H i2KTû` im`2 H THmb ûH2pû2 " H
 THmb # bb2 bQBi /? " Hö2ti2MbBQM /2 p
 BH 7 mi 7 B`2 2M bQ`i2 [m2 H2`27`QB/B|

```
bTQMi MûK2MiT `Hö2z2i/2 H ` `û7 +i
G2b #Q`M2b /2 H i2KTû` im`2 " H [m2HH2
7 B`2 ``Bp2` /ö #Q`/ H2 ~mB/2 M2 bQMi [r
i2KTû`im`2 T`Q/mBi2 T `H +QK#mbiBQM
ûHQB;Mû2bX
  G2b #Q`M2b /m `27`QB/Bbb2K2Mi b2 `
H i2KTû` im`2 /2b +Q`Tb H2b THmb 7`QE
/BbTQb2`7 +BH2K2Mi2i2M; M/2 #QM/
bQMiQ`/BM B`2K2MiH2b 2 mt/m HB2m Q
  Zm Mi " H i `QBbB K2 +QM/BiBQM-2HH
+mHiûb "H `û HBb iBQM/2 H TmBbb M+2
HQ`b[möBH bö ;Bi/2 K2ii`2 "T`Q}i/2;` M/
i2KTû` im`2-/ömiBHBb2`/2;` M/2b+?mi2
2z2i- BH 7 mi HQ`b [m2 H2; x-T ` Hö2z2
T bb2 / öm M2 i2 K Tû` im `2 i` b@ û H2 pû 2 "
i` b@# bb2- +2 [mB 2tB;2 mM; M/ +? M;2
2i /2 /2MbBiû- +2 [mB 2tB;2 [m2 H2; x b0
bQmb mM2 T`2bbBQM i` b@7Q`i2- Qm [mö
/2 b /BH i iBQM- mM pQHmK2 ûMQ`K2- +
Hö mi`2 /B{+BH2b " `2KTHB`X G T`2KB `;
/2 p Bbb2 mt i` b@bQHB/2b TQm` +QMi2
```

bQmb mM2 7Q`i2 T`2bbBQM 2i " mM2 ? mi2 i: b2+QM/2 Mû+2bbBi2 Hö2KTHQB /2 p Bbb2 m i` b@+QMbB/û` #H2X

*2 bQMi H" 2M 2z2i H2b T`BM+BT mt Q#bi

TQb2Mi" +2 [m2 HöQM K2ii2" T`Q}i- / Mb H2
p T2m`- mM2; `M/2 TQ`iBQM /2 H TmBbb M+
+? H2m`X PM 2bi 7Q`+û/2 b2 #Q`M2` "miBHBb
/m + HQ`B[m2-i M/Bb[m2 H +QK#mbiBQM/m
H2b KQv2Mb /2 bö2M T`Q+m`2` mM2 i` b@; `f
AH 2bi` `2 [m2 / Mb H2b K +?BM2b " p T2r
M Bbb M+2 m ~mB/2 ûH biB[m2 bQmb mM2 T
" e iKQbT? `2b- T`2bbBQM +Q``2bTQM/ Mi2

/2; $\hat{u}b + 2MiB$; $\hat{z}b - 2i BH 2bi$ $\hat{z}m 2 H + b\ddot{o}QT$ $\hat{z}m M2 i2KT\hat{u}im^2 7Qi m@/2bbQr + mi2 /2 + HQ`B[m2 /2 Reyê 9yê 2bi Rkyê - T2mi b2 T`Q+m`2` - T`H + QK#mbiBQM - mM2$

k y y y / 2; `û b X

SQm` KB2mt 7 B`2 +QM+2pQB` +2+B- MQm [m2 MQmb pQMb /ûbB; Mû T ` +?mi2 /2 + HQ` T bb; 2 /2 H +? H2m` /ömM +Q`Tb - QM H i2 ûH2pû2- "mM mi`2 "- QM 2HH2 2bi THmb # b [m2 H +?mi2 /m + HQ`B[m2 2bi /2 Ryy /2;`ûb

/2;`ûb HQ`b[m2 H /Bzû`2M+2/2i2KTû` im`2 2i " 2bi Ryyê Qm RyyyêX

. Mb mM2 K +?BM2 " p T2m` [mB i` p BHH2 bBQM e iKQbT? `2b- H i2KTû` im`2 /2 H + Rey /2;`ûb~, +ö2bi H" H2 +Q`Tb ~c BH 2bi 2M +QMi +i/m 7Qv2`- " H i2KTû` im`2 +QMbi Mi

MBi + QMiBMm2HH2K2MiH + ? H2m`Mû+2I H p T2m'X \dot{G} 2 +QM/2Mb2m` 2bi H2 +Q`Tb "~c BH 2KQv2M / \ddot{o} mM +Qm` Mi / \ddot{o} 2 m 7`QB/2- "H i T` b + Q M b i M i 2 / 2 9 y / 2; `û b ~ c B H # b Q `# 2 H2 + HQ`B[m2[mBHmB2bi TTQ`iû/m+Q]G /Bzû`2M+2/2i2KTû` im`22Mi`2+2b Reyê 9yê Qm Rkyê[~], +ö2bi TQm[~][mQB M +?mi2/m + HQ`B[m22biB+BRkyêX G2 +? `#QM ûi Mi + T #H2 /2 T`Q/mB`2 iBQM mM2 i2KTû` im`2 bmTû`B2m`2 " Ryy /QMi QM /BbTQb2 H2 THmb Q`/BM B`2K2| ûi Mi "Ryê 2MpB`QM-HöQM T2mib2 T`Q+ +?mi2 /2 + HQ`B[m2 /2 Ryyyê- +?mi2 /QM bQMi miBHBbûb T ` H2b K +?BM2b " p T2ı M2 bQMi@BHb T b KBb 2MiB `2K2Mi "T`Q /2b T2`i2b +QMbB/û` #H2b/m2b "/2b `ûi # /öû[mBHB#`2 / Mb H2 + HQ`B[m2X AH 2bi Bbû /ö T2`+2pQB` K BMi2M Mi + mb2b /2 Hö p Mi ;2 /2b K +?BM2b /Bi2b bm` H2b K + ?BM2b " T`2bbB-QM JTHMmb; 2# b `ûbB/2 2bb2MiB2HH2K2Mi / Mb H 7 +mł m M 2 T H m b; $M / 2 + ? m i \times 2 G m p + T + 2 Q m B T m 2 M$ M Bbb M+2 bQmb mM2 T`2bbBQM THmb 7 " mM2 i2KTû` im`2 THmb ûH2pû2- 2i +Qk i2KTû` im`2 /2 H +QM/2Mb iBQM `2bi2 iQ $H K K2^{\circ} c H +?mi2/m + HQ`B[m2 2bi ûp$

+QMbB/û` #H2X

J Bb TQm`iB`2`/2b K +?BM2b "? mi2 T``ûbmHi ibp`BK2Mi p Mi;2mt-BH7 mi[m2H`B[m2vbQBiKBb2"T`Q}iH2KB2mtTQbbB#F[m2H p T2m`T`2MM2M Bbb M+2"mM2i2KTûBH7 mi2M+Q`2[m2T`Hö2ti2MbBQM/2bQM"mM2i2KTû`im`2 bb2x # bb2X G2 + ` +i `2K +?BM2"p T2m`/QBi/QM+ i`2MQMb2mH2kH p T2m`bQmb mM27Q`i2HTö'22K5TBBQM2`KbQbm kb/2b T`2bbBQMb bm++2bbBp2b i`b@p`B #H2FmM2b/2b mi`2b-2i T`Q;`2bbBp4XK2Mi/û+`QE

k dX*2 T`BM+BT2- pû`Bi #H2 7QM/2K2Mi /2 H i?ûQ`B: "p T2m`- ûiû /ûp2HQTTû p2+ #2 m+QmT /2 +H `iû-K2Mi- / Mb mM KûKQB`2 T`ûb2Miû " Hö + /ûKB2 /2b b [m2H[m2b MMû2bX *2 KûKQB`2 Mö D K Bb ûiû BKT`E/? H +QMM Bbb M+2 " H +QKTH Bb M+2 /2 Hö mi2m H2 T`BM+BT2 v 2bi ûi #HB- K Bb BH v 2bi TTHB[mû /2 K +?BM2b "p T2m` +im2HH2K2Mi 2M mb ;2~c H Tn/2 +? +mM2 v 2bi ûp Hmû2 T ` H2 b2+Qm`b /2 H HQB-+QKT `û2 mt `ûbmHi ib /2 Hö2tTû`B2M+2X

G2 T`BM+BT2/QMiBH 2biB+B [m2biBQM 2bii2HH2K TT`û+Bû- [m2`û+2KK2MiJX S2`FBMb-+ûH #`2 Kû+ M +QMbi`mBi mM2 K +?BM2 QM H p T2m` 7Q`Kû2 b0 88 iKQbT? `2b- T`2bbBQM Dmb[m2 HQ`b BMmbBiû2 m+mM2 2ti2MbBQM /2 pQHmK2- +QKK2 QM T2mi bö2 H THmb Hû; `2 +QMM Bbb M+2/2 +2ii2 K +?BM2X 1HFb2mH +vHBM/`2- /2 /BK2MbBQMb 7Q`i T2iBi2b- [mB-b2`2KTHBi 2MiB`2K2Mi /2 p T2m` 7Q`Kû2 bQmb H iKQbT? `2bX G p T2m` M2 T`Q/mBi m+mM 2z2i T` HöpQHmK2- +` QM M2 HmB T`ûb2Mi2 m+mM2 + T +Biû TmBbb2 pQB` HB2m~c QM H +QM/2Mb2 mbbBi¬i T`+vHBM/`2X 1HH2 i` p BHH2 /QM+ b2mH2K2Mi bQmb

iKQbT? `2b- 2i MQM- +QKK2 Hö2tB;2` Bi bQM #0

T`2bbBQMb T`Q;`2bbBp2K2Mi /û+`QBbb Mi2bX m S2`FBMb M2 T` Wi@2HH2 T b`û HBb2` H2b 2bTû` 7 Bi+QM+2pQB`X PM p Bi T`ûi2M/m [m2 Höû+QMQ T `+2ii2 K +?BM2 ûi Bi /2b NfRy bm` H2b #QMM2b 2i [m2 HöQM v `2M+QMi` Bi 2M+Q`2 /öMMX2/2 p N T?vbB[m2 2i /2 +p?BBKBP23kj- T ;X 9kNV *2b bb2`iE bQMi T b pû`B}û2bX G K +?BM2 /2 JX S2`FBMb Mö BMp2MiBQM T`û+B2mb2 2M 2M [mö2HH2 KQMi`2 H /2 H p T2m` bQMb /2b T`2bbBQMb #2 m+QmT THmb7 Bi Dmb[m2 HQ`b-2i T `+2 [mö2HH2 T2mi +QM/KQ/B}û2- "/2b`ûbmHi ib p` BK2Mi miBH2bX q ii- "[mB HöQM /QBi T`2b[m2 iQmi2b H2b;` M /2b K +?BM2b " p T2m`- 2i [mB TQ`iû +2b K +? /2 T2`72+iBQM mDQm`/ö?mB /B{+BH2 " /ûT bb2 T`2KB2` [mB Bi 2KTHQvû H p T2m` bQmb /2b T`2b]

/m TBbiQM- [mB bö +?2p Bi BMbB bQmb mM2 T`2
7 B#H2X G2b T`2KB `2b K +?BM2b ;Bbb Mi bm` +
Rdd3X q ii 2M p Bi +QMIm HöB/û2 / b RdeN- 2i T`I
Q#D2i 2M Rd3kX
 oQB+B mM2 i #H2 [mB b2 i`Qmp Bi MM2tû2 " H

/û+`QBbb Mi2bX . Mb #2 m+QmT/2 + b-BH bmbT2 H p T2m` / Mb H2 +vHBM/`2- "KQBiBû- m iB2`b-

bmTTQb Bi H p T2m` BMi`Q/mBi2 / Mb H2 +vHBM/ [m `i /2 H +Qm`b2 /m TBbiQM~c TmBb- /BpBb Mi + T `iB2b- BH + H+mH Bi BMbB H T`2bbBQM KQv2M

			PRESSION décroissante de la vapeur, la pression entière étant 1.		
Quart Moitié Fond du cyl	0,15 0,20 0,25 0,35 0,40 0,45 0,56 0,65 0,65 0,75 0,85 0,85 0,95 0,95	a vape intercella descisopera la spansion	ne	0,830 0,714 0,625 0,625 0,500 0,454 0,417 0,385 0,375 0,533 0,512 0,294 0,277 0,262 0,025	Moitié de la press. primit. Tiers.

am` [mQBBH`2K`[mBi[m2HT`2bbBQMKQv2MM22

`B2m`2K2Mi b2b 2z2ib /ömM2 K MB `2 [m2 M2 MQmb Q++mTQMb T bX AK ;BMQMb [m2 HöQM 7Q`+2 H-2"TBbiQ

/2 H T`2bbBQM T`2KB `2~c [mö BMbB- 2M 2KTHQ
p T2m` û; H2 m [m `i- BH T`Q/mBb Bi mM 2z2i THr
q ii bmTTQb Bi B+B [m2 H p T2m` Q#b2`p2 / MI

HQB /2 J `BQii2~, +2 [möBH M2 /2p Bi T b `2; `/T `+2 [m2-/ömM2 T `i- H2 ~mB/2 ûH biB[m2-2M b2 i2KTû` im`2-2i [m2-/2 Hö mi`2-`B2M M2 T`Qmp B T b mM2 T `iB2 /2 +2 ~mB/2 T ` Hö2z2i /2 bQM 2tT /? mbbB pQB`û; `/" H 7Q`+2 Mû+2bb B`2 TQm` 2 `2bi2 T` b H +QM/2Mb iBQM-2i [mB b2 i`Qmp2 2 THmb; ` M/2 [m2 Hö2ti2MbBQM /m pQHmK2 ûiû T/Q+i2m`_Q#BMbQM p Bi DQmiû mi` p BH/2 q iiu TQm` + H+mH2` Hö2z2i /2 Hö2tT MbBQM /2 H p T2 b2 i`Qmp2 2Mi +?û2 /2b K K2b pB+2b [m2 MQmb p1 HH2 ûiû Mû MKQBMb miBH2 mt +QMbi`m+i2m`b/QMMû2 TT`QtBK iBp2 "T2m T` b bm{b Mi2 TQm` pQMb Dm;û miBH2 /2 ` TT2H2` +2b 7 Bib T `+2 [m

bm`iQmi 2M 6` M+2X PM v +QMbi`mBi /2b K +?BM2
BMp2Mi2m`b- K Bb QM TT`û+B2 K B H2b KQiB7b
/ Mb HöQ`B;BM2X GöQm#HB /2 +2b KQiB7b +QM
7 mi2b ;` p2bX .2b K +?BM2b Q`B;BM B`2K2Mi #E
/ûiû`BQ`û2b 2Mi`2 H2b K BMb /2 +QMbi`m+i2m`b E
v BMi`Q/mB`2 /2b T2`72+iBQMM2K2Mib /2 T2m /öB
H2b +QMbB/û` iBQMb + TBi H2b [möBHb M2 b p B2

pQB` 7 Bi KQmpQB` T ` bQM BMi`Q/m+iBQM H2 TBbiQ#M2M2272HH2 Hö2?i TQmbbû T ` H2 b2rbQM 2ti2MbBQM /272 M2H mHK2T m2Bbb M+2 KQi`BT`Q/mBi2 2?i ûiû THmb +QMbB/û` #H2 [m2 / + bX 1M 2z2i- H2 KQmp2K2Mi /m TBbiQM-û; |m` Bi 2m HB2m bQmb Hö2zQ`i /ömM2 T`2bb[mQB[m2 p `B #H2- [mQB[m2 T`Q;`2bbBp2K2 G p T2m` Mö2?i +2T2M/ Mi 2tB;û TQm` b[mömM2 [m MiBiû /2 + HQ`B[m2 T`û+BbûK2MK2Mi +2 + HQ`B[m2 2?i ûiû T`Bb " mM2 i2KTûH2pû2X

* ö 2 b i / ö T ` b / 2 b + Q M b B / û ` i B Q M b / 2 + 2 ; 2 M

Höûi i QM 2HH2 b2 i`Qmp2#02i72Mii[m277CTm Hbû2 2

ûi #HB2b H2b K +?BM2b "/2mt +vHBM/`2b-K $T \ \ JX > Q \ M \# HQr2 \ - \ T2 \ 72 + iBQMM û 2b \ T \ \ JX$ bb2Mi TQm` H2b THmb p Mi :2mb2b `2H i MQKB2 /m +QK#mbiB#H2X 1HH2b bQMi +QK +vHBM/~2 [mB-"+? [m2 TmHb iBQM-b2 ~2KT /2 p T2m` UbQmp2Mi 2MiB `2K2MiV- 2i /ömM m[m2HQM/QMM2Q\'/BM B\2K2MimM2 + T + +2HH2/m T`2KB2`-2i[mB M2 `2ÏQBi/ö mi 2 [mB /ûD"; B / Mb H2 T`2KB2` +vHBM/`2X E m i2 K2 /2 bQM + iBQM - m KQBMb [m / mT].m b2+QM/ +vHBM/\2 2HH2 2bi TQ\iû2 /B\2+ +QM/2Mb2m\~cKBbQM+QMÏQBi[mö2HH2T / Mb mM i`QBbB K2 +vHBM/`2 [m /`mTH2 /m b pQHmK2/2pB2M/`BiRe7QBbH2pQHmK2T`E Q#bi +H2 [mB böQTTQb2 " Hö2KTHQB /ömM /2 +2 ;2M\2 2bi H + T +Biû [möBH 7 m/\ Bi

H2b; M/2b/BK2MbBQMb[möBH 7 m/ B

Qmp2`im`2b /2biBMû2b " HBp`23XTL Qbm b2 " Mö2M /B`QMb T b / p Mi ;2 bm` +2 bm D2i- | T b /ö2Mi`2` B+B / Mb H2b /ûi BHb /2 +QN +?BM2b "72m", +2b /ûi BHb `û+H K2` B2N

k3KGö p Mi ;2 /2 /2mt +vHBM/`2b bm#biBimûb " m T2`+2pQB`X . Mb mM b2mH +vHBM/`2- HöBKTm 2t+2bbBp2K2Mi p `B #H2 /m +QKK2M+2K2Mi " H 7 m/` Bi [m2 iQmi2b H2b TB +2b /2biBMû2b " i` Mb7mbb2Mi /ömM2 7Q`+2 bm{b Mi2 TQm` `ûbBbi2` " H2i T `7 Bi2K2Mi bb2K#Hû2b 2Mi`2 2HH2b TQm` ûg

#`mb[m2b /QMi 2HH2b m` B2Mi #2 m+QmT " bQr m` B2Mi #B2Mi¬i /ûi`mBi2bX *2 b2` Bi bm`iQmi b H2b bmTTQ`ib-bm` H #B2HH2-bm` H K MBp2HH /2Miû2b-[m2 HöBMû; HBiû /öBKTmHbBQM b2 72` 2z2ib H2b THmb MmBbB#H2bX AH b2` Bi Mû+2bb B p T2m` 7?i " H 7QBb / \(\tilde{o} m M 2 7 Q \) + 2 bm \(\tilde{b} \) Mi2 TQm \) H THmb ûH2pû2-2i/ömM2 + T +Biû bb2x +QMbB/ p T2m' T'b bQM 2ti2MbBQM /2 pQHmK2-i M/Bb /2 /2mt +vHBM/\ 2b bm++2bbB7b- BH bm{i /2 /QMM p2 + mM2 + T + Biû Kû/BQ + 2 - + 2 [mB 2bi + ?Qb2 7]; M/2b/BK2MbBQMb p2+ mM2 7Q +2 Kû/BQ+ 2X G2b K + ?BM2b " /2mt + vHBM/ 2b - [mQB[m2 + Q]]#QMb T`BM+BT2b-b2 i`Qmp2Mi bQmp2Mi HQBM / p Mi ; 2 mt [m2 HöQM m Bi / QBi / ö ii2 M / 2 / ö2 I bm`iQmi" +2 [m2 H2b / BK2MbBQMb / 2b / Bp2`b2b T bQMi/B{+BH2b " #B2M \ \u00fa; H2\ - 2i [m\u00fa2HH2b b2 i\ Q Dmbi2 ` TTQ`i H2b mM2b p2+ H2b mi`2bX PM K M TQm` H +QMbi`m+iBQM /2b K +?BM2b " /2mt +vHB

2M TQbb /2/ö2t+2HH2Mib TQm` H +QMbi`m+iBQM /2 q iiX .2 H" pB2Mi H /Bp2`bBiû [m2 HöQM Q#b2`pmM2b 2i H T`2b[m2 mMB7Q`KBiû [m2 HöQM Q#b2`

i` Bi•i bTû+B H2K2Mi- 2i [mB Mö2tBbi2 T b 2 2M 6` 1MX+2

2i /QMi MQmb pQMb T `Hû- BH 2tBbi2 2M+C
"? mi2 T`2bbBQM " mM b2mH +vHBM/`2X G
/2`MB `2b QMi ûiû +QMbi`mBi2b T ` /2mt ? #
M;H Bb- JJX h`2p2iB+F 2i oBpB MX 1HH2b 2
T2m` bQmb mM2 T`2bbBQMi` b@ûH2pû2-[m2bT? `2b- K [b 2HH2b bQMib Mb +QM/2Mb2m`

k NXP M i`Q m p 2 / M b H ö Q m/p2`H; 2_BBM+i?P2ibmbH2· Ω XT B`MJ Ω X H 2 > Ω `Q M /2 o B H H 2 7 Q b b 2 - j 2 p Q H X - T ; X 8 y 2 i b m B p M i 2 b i B Q M /2 b K +? B M 2 b " p T 2 m ` + i m 2 H H 2 K 2 M i 2 M m b ; 2 / /2 b K B M 2 b X 1 M M; H 2 i 2 ``2 - Q M i ` B i Ω /2 b K +? B M 2 b K M B `2 b b 2 x + Q K T 1 H M i + 2 v Ω + H M Qb T H Ω b B 2 * X Ω in 20 H M Ω b h B + B b Q Q m p ` ; 2 X

pQB` ûiû BMi`Q/mBi2 / Mb H2 +vHBM/`2-2ti2MbBQM/2pQHmK2-KBb+QMb2\p2iC THmb ûH2pû2 [m2 H T`2bbBQM iKQbT?û `2KTHB bQM Q{+2- QM H `2D2ii2 / Mb Hc ûpB/2Mi [m2 +2ii2 7 ÏQM /ö ;B` û[mBp mi H2 ` TTQ`i /2 H TmBbb M+2 KQi`B+2 T`Q H p T2m` " Ryyê- 2i [m2 HöQM T2`/ mM2

miBH2~c K Bb H2b K +?BM2b [mB QT `2Mi +QM/2Mb2m`2i/2 TQKT2 " B`X 1HH2b bQ

[m2 H2b mi`2b- KQBMb +QKTHB[mû2b- 2 /2 TH +2- 2i T2mp2Mi bö2KTHQv2` / Mb H /BbTQb2T b/omM+Qm\ Mi/o2 m7\QB/2b

H +QM/2Mb iBQMX 1HH2bbQMiH"/omM TmBb[m2 HöQM M2 T2mi T b H2b `2KTH + K +?BM2b bQMiT`BM+BT H2K2Mi2KTHQv KQmpQB`/2b+? `BQib/2biBMûb mi` MbT

/2b + ? 2 K B M b / 2 7 2 ` û i # H B b - b Q B i / M b H ö bQBi"+B2H Qmp2\iX AH MQmb `2bi2 " 7 B `2 [m2H[m2b ` û~2tB ; x T2`K M2Mib 2i/2b p T2m`b mi`2b [m2 + /ûp2HQTT2K2Mi/2 H TmBbb M+2 KQi`B+2

GöQM 2bb vû "/Bp2`b2b `2T`Bb2b / +? H2m`bm`HöB` iKQbT?û`B[m2 TQm` H TmBbb M+2 KQi`B+2X *2; x T`ûb2Mi2-

p T2m \ / \"\" / \"\" 2 b p M i ; 2 b 2 i / 2 b B M + Q M p HHQMb 2t KBM2`X RAHT`ûb2Mi2-`2H iBp2K2Mi"H p T2m`/

MQi #H2 2M +2 [mö v Mi " pQHmK2 û;

TQm` H +? H2m` #2 m+QmT KQBM/`2-

```
/ p Mi ; 2 T ` m M 2 2 t i 2 M b B Q M b 2 K # H # H 2
 U*2 7 Bi 2bi T`Qmpû T ` +2 [m2 MQmb pQI
 /2KK2MiVX P`QM pm/2 [m2HH2 BKTQ`i
 /öQ++ bBQM2`- T ` H2b +? M;2K2Mib /2 pQ
 ; M/b +? M; 2K2Mib TQbbB#H2b / Mb H i2h
kêG p T2m`/ö2 m M2 T2mi i`2 7Q`Kû2 [m2]
 Kû/B B`2 / ö m M 2 + ? m / B `2 - i M / B b [ m 2 H ö
 `B[m2 TQm`` Bi i`2 û+? mz2 BKKû/B i2K2
 +QK#mbiBQM 2tû+miû2 / Mb bQM b2BMX P
 m M 2 T 2 ` i 2 + Q M b B / û ` # H 2 - M Q M b 2 m H 2 K 2 M
 /2 +? H2m`- K Bb 2M+Q`2 / Mb bQM /2;`û
 i`B[m2X *2i p Mi;2 TT `iB2Mi 2t+HmbBp2
  iKQbT?û`B[m2~cH2b mi`2b; x Mö2M DQm
 b2` B2Mi K K2 THmb / B { + B H 2 b " û + ? m z 2` |
 / ö 2 m X
jê } M / 2 T Q m p Q B` / Q M M 2` " H ö B` m M 2; ` M / 2
 pQHmK2- }M /2 T`Q/mB`2 T ` +2ii2 2ti2MbE
 +? M;2K2Mi/2 i2KTû` im`2- BH b2` Bi Mû+
 T`2M/`2/ö #Q`/bQmbmM2T`2bbBQM bb2x
 /` Bi / Q M + H 2 + Q K T ` B K 2 ` T ` m M 2 T Q K T 2 T Q m T ` i Q m i mi ` 2 K Q v 2 M p M i / 2 H ö û + ? m
 QTû` iBQM 2tB; 2` Bi mM TT `2BHT `iB+ml
 Mö2tBbi2 T b / Mb H2b K + ?BM2b " p T2m`
 +B- Hö2 m 2bi "Höûi i HB[mB/2 HQ`b[möQ
 / Mb H +? m/B `2~c2HH2 Mö2tB;2-TQm` v
 [mömM2 TQKT2 7QmH Mi2 /2 T2iBi2b /BK2I
9 eG 2 `27`QB/Bbb2K2Mi/2 H p T2m`T ` H2 + C
 `û7`B;û` Mi 2bi #B2M THmb T`QKTi 2i #B2
 [m2 M2 T2mi Hö i`2 +2HmB /2 Hö B`X § H p
```

H `2bbQm`+2 /2 `2D2i2` +2HmB@+B /
[mB m` Bi 2M Qmi`2 Hö p Mi ;2 /öûpBi
`û7`B;û` Mi /QMi QM M2 /BbTQb2 T b i
7 m/` Bi TQm` +2H [m2 Hö2ti2MbBQM /
M2 Hö2?i T b 7 Bi ``Bp2` "mM2 T`2bbB

T`2bbBQM iKQbT?û`B[m2X 8@M/2bBM+QMpûMB2MibH2bTHmb; p2 /2 M2 TQmpQB` T b i`2 T`Bb2 "/2 ? mi2 b Mb Mû+2bbBi2` Hö2KTHQB /2 p Bbb2 i` Q`/BM B`2X AH Mö2M 2bi T b /2 K K H2[m2HBHMö2tBbi2Tb/2`TTQ`iMû+2 ûH biB[m22iH i2KTû`im`2X Gö B`b2K T`QT`2 [m2 H p T2m` "`û HBb2` H Tm /2b +?mi2b /m + HQ`B[m2 / Mb H2b /2;`(i`2 / Mb H2b /2; `ûb BM7û `B2m `b H p T THmb + QMp2M #H2X PM + QM+2p` BiK I 7 B'2 : B' H K K2 + ? H2m' bm + + 2bbBp bm` H p T2m`/ö2 mX AH bm{` Bi/2 H B bQM 2KTHQB- mM2 i2KTû` im`2 ûH2pû2 `2D2i2` BKKû/B i2K2Mi / Mb Hö iKQbT? 2Mp2HQTT2` mM2 +? m/B `2 " p T2m`- + BKKû/B i2K2Mi/ömM 7Qv2`X Gö2KTHQB /2 Hö B` iKQbT?û`B[m2 m / H TmBbb M+2 KQi`B+2 /2 H +? H2m` T`(

T` iB[m2-/2b/B{+mHiûb i` b@; ` M/2b- K BMbm`KQMi #H2b~c bB QM T `p2M Bi " H2 b Mb /Qmi2 mM2 bmTû`BQ`Biû `2K `[m #H2 / \ddot{o} 2 j m X

jyXS `KB H2b i2Mi iBp2b 7 Bi2b TQm`/ûp2HQTT2` H T /m 72m T ` HöBMi2`Kû/B B`2/2 Hö B` iKQbT?û`B[m2-+2HH2b /2 JJX LB2T+2- [mB QMi 2m HB2m 2M 6` M+2 E Mû2b- m KQv2M/ömM TT `2BH MQTKVK` ûû TQH QXT216 QB` M2p2M oQB+B2M[mQB+QMbBbi Bi"T2mT`b+2i TT `2BH", KmMB/ömM TBbiQM-QM Hö B` iKQbT?û`B[m2 ûi Bi B Q`/BM B`2X GöQM v T`QD2i Bi mM2 K iB `2 i` b@+QK mM; M/ûii/2iûMmBiû-2i[mB 2bi Bi mM KQK2Mi 2 / Mb Hö B`- TmBb QM v K2ii Bi H2 72mX GöBM~ KK iB(T` b H 2 K K 2 2 z 2 i [m 2 b B H 2 ~ m B / 2 û H b i B [m 2 2 ? i û i û r 2i/2; x + Q K # m b i B # H 2 - / \(\bar{o}\) B \(^2\) i / \(\bar{o}\)? v / \(^2\); M 2 + \(^*\) # Q M \(\bar{u}\) -BH v p Bi mM2 bQ`i2 /ö2tTHQbBQM 2i mM2 /BH i iBG ûH biB[m2-/BH i iBQM [m2 HöQM K2ii Bi " T`Q}i 2M H 2MiB `2 +QMi`2 H2 TBbiQMX *2HmB@+B T`2M Bi mM I THBim/2 [m2H+QM[m2-2iH TmBbb M+2 KQi`B+2 b2i`]_B2M Mö2KT +? Bi2MbmBi2/2`2MQmp2H2`Hö B`2i/ QTû`iBQMb2K#H#H2"H T`2KB `2X

*2ii2 K +?BM2- 7Q`i BM;ûMB2mb2 2i BMiû`2bb Mi2 MQmp2 miû /2 bQM T`BM+BT2- Tû+? Bi T ` mM TQBMi /QMi QM 7 Bb Bi mb ;2 +QKK2 +QK#mbiB#H2 U+öûi E Hv+QTQ/2- 2KTHQvû2 " T`Q/mB`2 /2b ~ KK2b bm` MQ i`QT +? `2 TQm` [m2 iQmi p Mi ;2 M2 /BbT `?i T b T ` -2i K H?2m`2mb2K2Mi BH ûi Bi /B{+BH2 /ö2KTHQv2` /2 T`Bt KQ/û`û- + ` BH 7 HH Bi mM +Q`Tb 2M TQm/`2 HöBM~ KK iBQM 7?i T`QKTi2- 7 +BH2 " T`QT ;2`- 2i H /2 +2M/`2bX

m HB2m /öQTû`2` +QKK2 H2 7 Bb B2Mi JJX LB2T+b2K#Hû T`û7û` #H2 /2 +QKT`BK2` Hö B`T ` /2b TQKT2/2 HmB 7 B`2 i` p2`b2` mM 7Qv2` T `7 Bi2K2Mi +HQb-2BMi`Q/mBi H2 +QK#mbiB#H2 2M T2iBi2b TQ`iBQMb T ` +QM+2pQB`~c /2 HmB 7 B`2 /ûp2HQTT2` bQM +iBQM

Zm Mi mt mi`2b; x T2`K M2Mib-BHb #bQHmK2Mi`2D2iûb~, BHbQMiiQmbH2b

iKQbT?û`B[m2-b Mb T`ûb2Mi2` m+mM /2
 PM T2mi2M /B`2 mi Mi /2b p T2m`b mi`
Hö2 m +QKT `û2b " +2ii2 /2`MB `2X
 aöBH b2 `2M+QMi` Bi mM +Q`Tb HB[mB
p TQ`Bb•i " mM2 i2KTû` im`2 THmb ûH2pû;
p T2m` 2?i bQmb H2 K K2 pQHmK2 mM2 +
KQBM/`2- [mB Mö ii [m•i T b H2b Kûi mt
+QMbi`m+iBQM /2b K +?BM2b- BH Kû`Bi;

+Q`TbX
PM T`QTQbû [m2H[m27QBb Hö2KTHQE+QQH-QM K K2+QMbi`mBi/2bK+?BM2b
`2M/`2+2i2KTHQBTQbbB#H22MûpBi Mi

T`û7û`2M+2~c K Bb H M im`2 M2 MQmb (

p T2m'- }M /ömiBHBb2' H i2KTû' im'2 [mB HmB b

p2+ Hö2 m /2 +QM/2Mb iBQM- +ö2bi@"@

TBbiQM Qm / Mb iQmi2 mi`2 + T +Biû 2ti2MbB#H2 / Mb Hö iKQbT? `2 - Qm K K2 /2 H2 7 B`2 T bb2` bC

G2b T`BM+BT H2b /B{+mHiûb [m2 HöQM 2?i `2M /öQTû` iBQM 2mbb2Mi ûiû /2 `2M72`K2` H2 7Qv2` /ömM2 bQHB/Biû bm{b Mi2- /ö2Mi`2i2MB` +2T2M/

ûi i +QMp2M #H2- /2 K BMi2MB` H2b /Bp2`b2b T
mM2 i2KTû` im`2 KQ/û`û2- 2i /ö2KT +?2` H2b /û;`
/m +vHBM/`2 2i /m TBbiQM~, MQmb M2 +`QvQMbBMbm`KQMi #H2bX

AH ûiû 7 Bi- /Bi@QM-iQmi`û+2KK2Mi 2M M; ?2m`2mt bm` H2 /ûp2HQTT2K2Mi /2 H TmBbb M+2 /2 H +? H2m`bm` Hö B` iKQbT?û`B[m2X LQmb B;

[[]mQB +2b 2bb Bb QMi +QMbBbiû-bBiQmi27QBb Bl

THmb 7Q`i2 [m2 H p T2m`/ö2 m " û; H2 i2KT M2 TQmpQMb pQB` H" [möm M MQmp2H Q#bi + T`BM+BT H/û7 mi/2 H p T2m`/ö2 m 2bi b i2 " mM2 i2KTû` im`2 ûH2pû2", Q` +2 /û7 mi 2 7Q`i2` BbQM / Mb H p T2m`/ö H+QQHX Zm`2H iB7 "mM2 THmb;` M/2 T`Q/m+iBQM /2 Tmp Mi;2 [m2 HöQM +`Qv Bi /2pQB` `2M+QMi`;T` H2b T`BM+BT2b 2tTQbûb +B@/2bbmb- [m*ö2bi /QM+ bm` Hö2KTHQB /2 H p T2m`/öiKQbT?û`B[m2 [m2/QBp2Mi TQ`i2` H2bi2Mi/2 T2`72+iBQMM2K2Mi/2b K +?BM2b "72m~oT` H2 KQv2M /2 +2b ;2Mib- H2b THmb;`TQbbB#H2b /m + HQ`B[m2- [m2/QBp2Mi i`2

+Q`Tb 7`QB/ 2tiû`B2m`2K2Mi- m HB2m /2 Hö
K +?BM2X PM +`Qv Bi T2`+2pQB` / Mb H p T
p Mi ;2 `2K `[m #H2 2M +2 [mö2HH2 TQbb /

LQmbi2`KBM2`QMb2M7 Bb Mi T2`+2pQB' HQBM/ö pQB``û HBbû-T` H2b KQv2Mb+QM iQmi2 H TmBbb M+2 KQi`B+2/2b+QK#mbiB# IM FBHQ;` KK2/2+?`#QM#`?Hû/ Mb H2

2zQ`ibX

7Qm`MBimM2[m MiBiû/2+? H2m`+ T #H2/ö+2MiB;`/2 dyyy FBHQ;`KK2b/ö2 m 2MpB`Q [möBH 7Qm`MBi dyyy mMBiûb/2+? H2m`/ö/QMMû2UT;X3R~V/2+2b mMBiûbX

G THmb; `M/2+?mi2`û HBb #H2/m + HQ` `û2 T `H /Bzû`2M+2 2Mi`2 H i2KTû` im`2 T` +QK#mbiBQM 2i +2HH2/2b +Q`Tb 2KTHQvûb AH 2bi/B{+BH2/ö T2`+2pQB` "H i2KTû` im` iBQM / o mi 2b HBKBi2b [m2 +2HH2b QM I

HöQtB; M2 2i H2 +QK#mbiB#H2 T2mi bö2
+2T2M/ Mi [m2 Ryyyê bQB2Mi +2ii2 HBK!
iB2M/`QMb +2`i BM2K2Mi m@/2bbQmb /2
H i2KTû` im`2 /m `û7`B;û` Mi- bmTTQbQN
LQmb pQMb ûp Hmû TT`QtBK iBp2K2M
iBiû /2 TmBbb M+2 KQi`B+2 [m2 /ûp2HQT]
+? H2m` /m /2;`û Ryy m /2;`û NN~, MQmb
R-Rk mMBiû /2 TmBbb M+2 û; H2b +? +ml

i?2`KQKûi`B[m2-`B2M M2 b2` Bi T H m b 7 - /2 Ryyyê "yê", 2 H H 2 m ` Bi T Q m ` p H 2 m `)

R-Rk "Ryyy 4 RRkyX

J Bb +QKK2 +2ii2 HQB Mö2bi [mö TT`QtB böû+ `i2 T2mi@ i`2 #2 m+QmT /2 H pû`B ûH2pûb- MQmb M2 TQmpQMb 7 B`2 [möm 7 Bi;`QbbB `2~, MQmb bmTTQb2`QMb H2 KQBiBû- +ö2bi@"@/B`2 "8eyX

SmBb[m2 mM FBHQ;` KK2/2+? `#QM T`(/2+? H2m` 2i [m2 H2 MQK#`2 8ey 2bi `2HBH 7 mi H2 KmHiBTHB2` T ` d-+2 [mB/QM

$d\,\text{``}\,8\,e\,y\,\,4\,\,j\,N\,k\,y\,X$

oQBH" H TmBbb M+2 KQi`B+2 /ömM FBHQ

SQm`+QKT `2`+2`ûbmHi ii?ûQ`B[m2 p2-/ö2tTû`B2M+2-2t KBMQMb+QK#B2M mM FBH #QM /ûp2HQTT2 `û2HH2K2Mi /2 TmBbb M+2 K2BHH2m`2b K +?BM2b " 72m +QMMm2bX

G2b K +?BM2b [mB QMi T`ûb2Miû Dmb[mö] H2b THmb p Mi ;2mt bQMi H2b ;` M/2b K +1 +vHBM/`2b 2KTHQvû2b " HöûTmBb2K2Mi /2b +mBp`2 /2 *Q`Mr HHX oQB+B H2b K2BHH2m` B2Mi D K Bb 7Qm`MBX

8 e KBHHBQMb / 2 HBp` 2 b / ö 2 m QMi û i û û HM; H Bb T ` #QBbb2 m / 2 + ? ` #QM #` ? Hû UH 3 3 HBp` 2 b ~ V X * 2 i 2 z 2 i û [mBp mi " û H 2 p 2` - T ` + ? ` #QM - R N 8 K i` 2 b + m # 2 b / ö 2 m " m M K i` 2 t T` Q/mB` 2 T ` + Q M bû [m 2 M i R N 8 m M B i û b / 2 T n T ` FBHQ; ` KK2 / 2 + ? j R`X# Q M #` ? Hû

[/] Mb Höûp Hm iBQM /2b 2z2ib /2b K +?BM2b " p T2m`-Ry +?2p mt /QBi ûH2p2` T ` b2+QM/2 Ry s d8 FBHQ;`X

RN8 mMBiûb M2 bQMi [m2 H2 pBM;iB K2 i?ûQ`B[m2~, T `+QMbû[m2Mi Rfky b2mH2kKQi`B+2/m +QK#mbiB#H2 ûiû miBHBbû2 LQmb pQMb +2T2M/ Mi +?QBbB MQi`2 K2BHH2m`2b K +?BM2b "p T2m` +QMMm2 G THmT `i/2b mi`2b H2m` bQMi #B2M

+B2MM2 K +?BM2 /2 *? BHHQi- T ` 2t2KTH +m#2b /ö2 m " jj K i` 2b TQm` jy FBHQ;` KK #`?Hû- +2 [mB` 2pB2Mi " kj mMBiûb /2 TmB FBHQ;` KK2- `ûbmHi i M2m7 7QBb KQBM/ /2bbmb- 2i R3y 7QBb KQBM/`2 [m2 H2 K tB PM M2 /QBi T b b2 ~ ii2` /2 K2ii`2 D K Bb H T` iB[m2- iQmi2 H TmBbb M+2 KQi`B+ G2b i2Mi iBp2b [m2 HöQM 72` Bi TQm` TT b2` B2Mi K K2 THmb MmBbB#H2b [mömiB Mû;HB;2` /ö mi`2b +QMbB/û` iBQMb BKTO /m +QK#mbiB#H2 Mö2bi [mömM2 /2b +QM/ H2b K +?BM2b " 72m~c / Mb #2 m+QmT /2 2HH2 Mö2bi [m2 b2+QM/ B`2- 2HH2 /QBi " H b?`2iû- " H bQHB/Biû- " H /m`û2 /2 T2m /2 TH +2 [möBH 7 mi HmB 7 B`2 Q+

7` Bb /2 bQM ûi #HBbb2K2Mi- 2i+X a pQ

" m M K i 2 / 2 ? m i 2 m ` - Q m # B 2 M - T ` ? 2 m ` 2 - d 8 y s F B H Q ; ` K K 2 b " m M K i ` 2 X a B M Q m b b m T T Q b Q M b |

^{+? `#}QM ûH p2"+2ii2? mi2m` Ry9yyy FBHQ; X-BH H2 +? `#QM #`?Hû 2M mM2 ?2m`2 T ` MQi`2 K +?I /BpBb2` kdyyyyy T ` Ry9yyy- +2 [mB /QMM2 kdyyfR 2bi #B2M ` `2 /2 pQB` mM2 K +?BM2 /2 Ry +?2p mt /2 ke FBHQ; X /2 +? `#QM T ` ?2m`2X

+? [m2 + b- "H2m` Dmbi2 p H2m`- H2b +Ql +QMp2M M+2 2i /öû+QMQKB2 [mB T2mp2Mi b: /Bb+2`M2` H2b THmb BKTQ`i Mi2b /2 +2HH2b ++2bbQB`2b- H2b # H M+2`iQmi2b +QMp2M }M /2 T `p2MB` T ` H2b KQv2Mb H2b THmb 7 `ûbmHi i- i2H /QBi i`2 H2 T`BM+BT H i H2 TT2Hû "/B`B;2`- "+QQ`/QMM2` 2Mi`2 2mt l b2b b2K#H #H2b- "H2b 7 B`2 +QM+Qm`B` p2 [m2H[m2;2M`2 [möBH bQBiX

6ALX