

GdUbXUi Yf': fY]k]`)[YbU[Ybhi f`Yfk Y]hYfh 6YfUhi b[gUb[YVch`Ui Z GhUXhhY]`V]V`]ch\Y_Yb

8]Y`GdUbXUi Yf': fY]k]`)[YbU[Ybhi f`\Uh]`f
6YfUhi b[gUb[YVch`Z0f`60f[Yf]bbYb`i bX`60f[Yfž`X]Y`g]W\`Z0f`
ZfY]k]`)[Yg`9b[U[Ya Ybh]bhYfYgg]YfYbž`Yfk Y]hYfh" `⊕
Ni gUa a YbUfVY]h`a]h`XYf`GhUXhV]V`]ch\Y_Y`GdUbXUi `k YfXYb
UV`gcZcfh`6YfUhi b[ghYfa]bY`b]W\`h`bi f`Ua `hfUX]h]cbY`Yb
GhUbXcfh]b`XYf`GdUbXUi Yf`5`hghUXhž`gcbXYfb`Ui W\`]b`U`Yb
j]Yf`GhUXhhY]`V]V`]ch\Y_Yb`Ub[YVchYb" `8]YgYg`D]`chdfc`Y_h
gc`XYb`A YbgW\Yb`]b`GdUbXUi `a Y`f`A 0[`]W\`Y]hYb`V]YhYbž`
g]W\`0VYf`ZfY]k]`)[Yg`9b[U[Ya Ybh`ni `]bZcfa]YfYb`i bX`ni
Yb[U[]YfYb" `8]Y`GhUXhhY]`V]V`]ch\Y_Yb`]b` : U`_Yb\U[YbYf`
 : Y`Xž`< UgY`\c fghž`< YYfghfU» Y`i bX`?`UXck`X]YbYb`U`g
ni gÄhn`]W\`Y`GhUbXcfhY`Z0f`X]Y`dYfg0b`]W\`Y`6YfUhi b[`Xi fW\`
X]Y`GdUbXUi Yf': fY]k]`)[YbU[Ybhi f" `8i fW\`X]Y`9fk Y]hYfi b[
XYg`5b[YVchg`k]fX`XYf`Ni [Ub[`ni `⊕Zcfa Uh]cbYb`0VYf`
ZfY]k]`)[Yg`9b[U[Ya Ybh`Yf`Y]W\`hYfh`i bX`XYb`60f[Yf]bbYb
 / Ua d^Y`]d/

8]Y`GdUbXUi Yf': fY]k]`)[YbU[Ybhi f`\Uh]`f`6YfUhi b[gUb[YVch`Z0f`
60f[Yf]bbYb`i bX`60f[Yfž`X]Y`g]W\`Z0f`ZfY]k]`)[Yg`9b[U[Ya Ybh
]bhYfYgg]YfYbž`Yfk Y]hYfh" `⊕`Ni gUa a YbUfVY]h`a]h`XYf`
GhUXhV]V`]ch\Y_Y`GdUbXUi `k YfXYb`UV`gcZcfh`6YfUhi b[ghYfa]bY
b]W\`h`bi f`Ua `hfUX]h]cbY`Yb`GhUbXcfh]b`XYf`GdUbXUi Yf`5`hghUXhž`
gcbXYfb`Ui W\`]b`U`Yb`j]Yf`GhUXhhY]`V]V`]ch\Y_Yb`Ub[YVchYb"
8]YgYg`D]`chdfc`Y_h`gc`XYb`A YbgW\Yb`]b`GdUbXUi `a Y`f`
A 0[`]W\`Y]hYb`V]YhYbž`g]W\`0VYf`ZfY]k]`)[Yg`9b[U[Ya Ybh`ni
]bZcfa]YfYb`i bX`ni `Yb[U[]YfYb"

8]Y`GhUXhhY]`V]V`]ch\Y_Yb`]b` : U`_Yb\U[YbYf': Y`Xž`< UgY`\c fghž`
< YYfghfU» Y`i bX`?`UXck`X]YbYb`U`g`ni gÄhn`]W\`Y`GhUbXcfhY`Z0f`X]Y`
dYfg0b`]W\`Y`6YfUhi b[`Xi fW\`X]Y`GdUbXUi Yf': fY]k]`)[YbU[Ybhi f"

8 i fW`X]Y`9fk Y]hYfi b[`XYg`5b[YVchg`k]fX`XYf`Ni [Ub[`ni
`bZcfa Uh]cbYb`ØVYf`ZFY]k]`][Yg`9b[U[Ya Ybh`Yf`Y]W`hYfh`i bX`XYb
6Øf[Yf]bbYb`i bX`6Øf[Yfb`X]Y`A Ò[`]W`_Y]h`[Y[YVYbž`g]W`X]fY`_h
j cf`C fh`ni `]bZcfa]YfYb`i bX` : fU[Yb`ni `ghY`Yb"

8]Y`HYfa]bY`ZØf`X]Y`6YfUhi b[Yb`_ØbbYb`X]fY`_h`ØVYf`X]Y
GdUbXUi Yf` : fY]k]`][]YbU[Ybhi f`j YfY]bVUfh`k YfXYbž`Ybhk YXYf`dYf
9!A U]`Ub`hYUa 4 X]Y!gdUbXUi Yf"XY`cXYf`hY`YZcb]gW`i bhYf`\$` \$
&`) - `%%`+++`"8]Y`5[Ybhi f`gYhnh`g]W`gY]h`Δ\ fYb`XUZØf`Y]bž
ZFY]k]`][Yg`9b[U[Ya Ybh`]b`XYf`GhUXh`ni `ZØfXYfb`i bX`ni
i bhYfghØhYb`"8]Y`9fk Y]hYfi b[`XYg`6YfUhi b[gUb[YVchg`Ui Z`X]Y
GhUXh`hY`]V`]ch`Y`_Yb`i bhYfghfY]W`h`]fY`6YghfYVi b[Ybž`XYb
Ni [Ub[`ni `bZcfa Uh]cbYb`i bX`F Yggci fW`b`ZØf`ZFY]k]`][Yg
9b[U[Ya Ybh`ni `Yf`Y]W`hYfb"

8]Y`GdUbXUi Yf` : fY]k]`][YbU[Ybhi f`_cbnYbhf]Yfh`g]W`i]bhYbg]j `Ui Z
XUg`H`Ya U`9`fYbUa hž`]bXYa `g]Y`VYf`Āhž`j YfbYhnh`i bX`j Yfa]hY`h"
Ni XYa `]b]h]]Yfh`g]Y`K cf`_g`cdgž`J YfUbghU`hi b[Yb`i bX
: cfhV]`Xi b[Ybž`i a `XUg`9`fYbUa h`k Y]hYf`ni `ZØfXYfb`i bX`ni
gh`Āf`_Yb`"8]Y`5[Ybhi f`k]fX`VYhf]YVYb`Xi fW`X`Yb`Hf`Ā[Yf`Gh]Zhi b[
l b]cb`\`Zgk Yf`_6Yf`]b`i bX`Ui g`A]hY`b`XYg`6Yn]f`_g`Ui g`U`hYg
[YZØfXYfhž`k cVY]`XUg`9`fYbUa hgVØfc`i bX`X]Y`GhUVgghY`Y
`b`hY[fUh]cbga UbU[Ya Ybh`XYg`6Yn]f`_gUa hg`X]Y`6YhfYi i b[`i bX
l bhYfghØhni b[`XYg`Dfc`Y`_hYg`ØVYfbY`a Yb`"

`b`XYf`Zc`[YbXYb`HUVY`Y`g]bX`X]Y`?cbhU`hXUhYb`XYf`GdUbXUi Yf
: fY]k]`][YbU[Ybhi f`ni gUa a Yb[YZUggh

p?cbhU`h`p`p

p p

p

p5XfYggY`p7Uf`!GW`i fn!Ghf`")`ž`%`) - +`6Yf`]b`p

pHY`YZcb`p`\$` \$`&`) - `%%`+++`p

pK YVgY]hY`p`k k k "X]Y!gdUbXUi Yf"XY`p

p`b`ghU[fUa `p`X]YgdUbXUi Yf`p

E i Y`Y. k k k "VYf`]b"XY

8YhU]`g

6Ygi W\Yb`G]Y`i bg`Ui Z.`a Y]b!VYf`]b"bYh