

NUi VYfYf'VYghc\`Yb.'' \$\$\$'9i fc'GWXUXYb Xi fWX'XfY]ghY'8]YVY°

NUI VYfYf'H\ca Ug'A U^_U'UI g'; Òf`]hn'k i fXY'ØVYf'BUW\h VYghc\`Yb"'8]YVY'Ybhk YbXYhYb'gY]bY'NUI VYfUI gfØghi b[UI g'XYa '5i hc"



; Of hnž8Yi hgW `UbX'!; Of hn']gh'a ca YbhUb']a '6Ubb'Y]bYg i bgW ObYb'JcfZU``g"8Yf" +!A\f][Y'NUi VYfYf'H\ca Ug'A U^U ki fXY'ØVYf'BUW h'VYghc\`Ybž'U`g'8]YVY'gY]bY'5i gfØghi b['Ui g gY]bYa '6A K 'ghU\`Ybž'XYf'Ub'XYf'?fYi n_]fWXY'[YdUf_h'k Uf"'8Yf 8]YVghU\`YfY][bYhY'g]W ž'k À\fYbX'A U^Ua]h'gY]bYa '<ibX i bhYfk Y[g'k Ufž'i bX'k i fXY'Yfgh'[Y[Yb'%\$'I\f'VYa Yf_hž'U`g'Yf ni fØW_Y\fhY"'Ni 'XYb'[Yghc\`YbYb'; Y[YbghÀbXYb'nÀ\`Yb'Y]b]DUXž'Y]bY'A i g]_VcI'i bX'X]j YfgY'NUi VYffYei]g]hYb' 'XUfi bhYf'Y]b ?UfhYbgd]Y`'i bX'<c`n\UgYb"'8Yf'[YgUa hY'GW UXYb'k]fX'Ui Z'Yhk U '"\$\$\$'9i fc'[YgW\Ahnhž'k Ug'ZØf'A U^U'VYgcbXYfg'i b[Øbgh][']ghž'XU Yf'a Y\fYfY'5i Zhf]hhY'gck]Y'X]Y'JcfVYfY]hi b['j cb': Yf]YbWJa dg d'Ubh"'6YgcbXYfg'Af[Yf']W. '9f'\Uh'_Y]b'@UXY_UVY`'ZØf'gY]b @Udhcdž'k Ug'X]Y'JcfVYfY]hi b['Yf\YV']W YfgWkkYfh"

; ` \emptyset W_`]W\Yfk Y]gY`\UVYb`]\a `gY]bY`NUi VYf!?c``Y[Yb`a]h'9fgUhn! 9ei]da Ybh'Ui g[Y\c`ZYbž'i a `X]Y`?]bXYf`k Y]hYf\]b`ni `i bhYf\U`hYbž Ui W\`k Ybb`X]Yg`Y]bYb`[fc»Yb`JYf`i gh'Z \emptyset f`A U^_U`XUfghY``hž`XYf`]b XYf`A U[]Yf!GnYbY`ZYgh'YhUV`]Yfh']gh''8]Y`HU[&(`VYf]W\hYh'k Y]hYfž XUgg`X]Y`?f]a]bU`dc`]nY]`VYfY]hg`9fa]hh`i b[Yb`Ui Z[Ybca a Yb`\Uh''

8 c W 'X Ug']gh'b] W h'X Ug'Y]bn][Yž'k Ug']b'; Òf`]hn'a ca YbhUb'ZØf 5 i ZfY[i b['gcf[h"'@Ui h'Y]bYa '6Yf]W h'j cb'XYf'GÀW g]gW Yb'[UV Yg'nk]gW Yb'GUa ghU[!'i bX'GcbbhU[a]hhU['Y]bYb'k Y]hYfYb 8]YVghU\`'j cb'NUi VYfY]i hYbg]`]Yb"'Nk Y]'?cZZYf'a]h'FYei]g]hYb k i fXYb'Ui g'Y]bYa 'D_k'[Yghc\`Ybž'XYf'GW UXYb'VYhfÀ[h'\]Yf Yhk U'&"%\$\$'9i fc"'8]YgY'?cZZYf'k i fXYb'gdÀhYf'`YYf']b'XYf I a[YVi b['[YZ]bXYb"

I bZÀ``Y'i bX'k Y]hYfY'JcfZÀ``Y

 $8]Y `Dc`]nY] `` Uh`Ub`X]YgYa ``HU[`bcWX``UbXYfY``9]bgAhnY``[Y\UVhž XUfi bhYf`Y]bYb`I bZU```Ui Z`XYf`<Yfk][gXcfZYf`GhfU» Yž`k c`Y]b`D_k]b`XYb`; fUVYb`UV[Yfi hgWXh`]gh"; `<math>\emptyset$ W_`]WXYfk Y]gY`V`]YV`X]Y : U\fYf]b`i bj Yf`Yhnh" 5a `&%" `\$ b]`YfY][bYhY`g]WX`Y]b`gWXk YfYf I bZU```]b`B]Yg_mž`VY]`XYa `Y]bY`+%! ^A\f][Y`FUXZU\fYf]b`j Yf`Yhnh k i fXYž`gck]Y`Y]b`k Y]hYfYf`I bZU```]b`GY]Z\YbbYfgXcfZž`VY]`XYa `Y]b - ' ! ^A\f][Yf`: U\fYf`Y]bYb`' %! ^A\f][Yb`5i X]!: U\fYf` \emptyset VYfgU\"`6Y]XY V`]YVYb`U``YfX]b[g`bi f``Y]WXh'j Yf`Yhnh"

G]WXYf\Y]hgghUh]gh]_'gc``'5i ZgWX`i gg'[YVYb

CVk c\``X]Y'?f]a]bU`]hÀh'VYgcbXYfg'VY]'8]YVghÀ\`Yb'ni b]a a hž V`Y]Vh'X]Y'U``[Ya Y]bY'?f]a]bU`]hÀh']b'; Òf`]hn'i bX'GUWXgYb']a a Y\f'À\f][Yb'JYf[`Y]WX'b]YXf][ž'k]Y'X]Y'Øb[ghYb'NU\`Yb'Ui g'XYf' dc`]nY]`]WXYb'?f]a]bU`ghUh]gh]_'VY`Y[Yb"'&\$&' 'k i fXYb]bg[YgUa h'&*\$", \$\$'8Y`]_hY'fY[]ghf]Yfhž'k Ug'Y]bYa '5bgh]Y['i a ') ž% $\label{eq:chybridge} $$ i = JYf[\Y]WX = JCf'U\f'Ybhgdf]WXh'' = JY'5i Z_`Afi b[geichY']Y[h'\]b[Y[Yb'VY]'* $ž- i Z'Y]b'@]WXhV`]W_']b'Y]bYf'gcbgh $$$ Ub[YgdUbbhYb'G]hi Uh]cb''$

8]Y'Dc`]nY]VY\ÒfXYb'g]bX'[YZcfXYfhž'XYb'a i ha U»`]WXYb'HÀhYfb
Ui Z'X]Y'Gdi fini '_ca a Yb"'8Yf'NUi VYfYf'H\ca Ug'A U^_U'\cZhž
XUgg'gY]bY'5i gfØghi b['VU`X'k]YXYf'Ui ZhUi WXhž'XUa]h'Yf'gY]bY
NUi VYf_i bgh'Ui gØVYb'_Ubb"'\dagger XYf'Nk]gWXYbnY]h'a ÒWXhY'Yf'gY]bY
5i Zhf]hhY'[i h'j cfVYfY]hYbž'i bhYfghØhnh'j cb'XYb'\]`ZgVYfY]hYb
?c``Y[Yb']b'XYf'6fUbWXY"

8 Y hU]`g	
Cfh	; Òf`]hnž'8 Yi hgW\`Ub X
EiY``Yb	• k k k "hU[&("X Y
	• k k k "gUYWX g]gWX Y"XY
	k k k "dc`]nY]"gUW\gYb"XY

6Ygi WXYb G]Y i bg Ui Z b!U["bYh