

8]gWcj Yfi dWca]b['> bYhYYbh\ 'WY`YVfUh]cbg 'UWfcgg 'Dc`_ 7ci bhmž \][\`][\h]b['W' `hi fU``\Yf]hU[Y'UbX'Wca a i b]hm Yj Ybhg Zfca '> bY '%' !&, ž'&\$&) "



Dc`_'7ci bhmž': `cf]XUž'I G5 !'5g'\ bYhYYbh\ 'UddfcUW\Yg'cb'\ bY %-ž'Dc`_'7ci bhm']g'Vi nn]b['k]h\ 'WY'YVfUh]cbg'h\ Uh'\cbcf'h\]g
a ca Ybhci g'cWWUg]cb']b'5a Yf]WUb'\]ghcfm"'H\Y'bYk Ygh'ZYXYfU`\c`]XUmž'cZZ]W]U``m'bUa YX'\ bYhYYbh\ 'BUh]cbU``\#bXYdYbXYbWY'8Umž
Wca a Ya cfUhYg'h\Y'Ya UbW]dUh]cb'cZ'Ybg`Uj YX'5Zf]WUb
5a Yf]WUbgž'a Uf_]b['h\Y'XUm']b'%, *) 'k\Yb'I b]cb'gc`X]Yfg
Ubbci bWYX'ZfYYXca ']b'; U`j Yghcbž'HYI Ug"'H\Y'\c`]XUm'fYZYWhg'U
d]j chU`'W\UdhYf']b'h\Y'bUffUh]j Y'cZ'h\Y'I b]hYX'GhUhYgž'\][\`][\h]b[
bch'A gh'h\Y'YbX'cZ'g`Uj Yfm'Vi h'U`gc'h\Y'W 'hi fU`'\Yf]hU[Y'UbX
fYg]`]YbWY'cZ'h\Y'6`UW_'Wca a i b]hm"

G]bW*'VY]b['g][bYX']bhc'`Uk 'Vm'DfYg]XYbh' \approx Y'6]XYb'cb'\$i bY'%+ž &\$&%ž'\$i bYhYYbh\'\Ug'hfUbgZcfa YX']bhc'U'g][b]Z]WUbh'a ca Ybh'Zcf

$9j Ybhg GdUbb]b[h\ Y 7ci bhm]$

 $H\]g'mYUf\bar{z}'W'`YVfUh]cbg']b'Dc`_'7cibhm'k\]````Ugh'cjYf'hk c'kYY_g\bar{z} k\]h\ 'U'd`Yh\ cfU'cZ'YjYbhg'XYg][bYX'hc'Yb[U[Y'h\Y'Wcaaib]hm UbX'WY`YVfUhY'W'`hifY''GhUfh]b['k]h\ 'U'dfY!WY`YVfUh]cb'cb'$ibY'%' $\frac{1}{2}h\Y'HifbYf'7YbhYf']b'@U_Y'K U`Yg'k]```\cgh'F/6'UbX''Unn dYfZcfaUbW'g'Uh'*'d"a"\tiexk]h\ 'U'h]\W_Yh'df]WY'gYh'Uh'`'\$ihc'giddcfh mcih\ 'gW\c`Ufg\]d'dfc[fUag'''AYUbk\]`Y\tiexh\Y'F]hn'H\YUhfY']b $$K]bhYf'<UjYb'k]```gWfYYb'H\Y'G]I'Hf]d`Y'9][\htilde{x}'U'ZfYY'acj]Y UVcih'h\Y'*, , , h\ '7YbhfU``DcghU``8]fYWhcfm'6UhhU`]cb\tievU'ib]h'cZ $Zf]\WUb'5aYf]\Wb'ZYaU`Y'gc`X]Yfg'k\c'\Y`dYX'Xif]b['Kcf`X'KUf =\tiex'Uh'*.'\$'d"a"$

Cbi by '%(žh\ Y 'ZYgh]j]h]Yg 'Wcbh]bi Y 'k]h\ 'U'f]VVcb!W hh]b[
WfYa cbm'Uh'- 'U"a "'Zcf'h\ Y fYbUa]b['cZ'K YVghYf'DUf_'hc'BY``]Y
A UXU`mbbY '6fcc_g'DUf_']b '@U_Y`UbXž'U'hf]Vi hY 'hc'U'bchUV`Y'`cWU`
Z][i fY"'@UhYf'h\ Uh'XUmž'Zfca '%%'U"a "'hc'('d"a "ž'h\ Y'Fi YVYb
K]``]Ua g'Gdcfhg'7ca d`YI']b 'K]bhYf'< Uj Yb 'k]```ZYUhi fY'U

\$ bYhYYbh\ 'WY`YVfUh]cbž'Wca d`YhY'k]h\ '`]j Y'dYfZcfa UbWYg'UbX'Ub
UddYUfUbWY'Vm'h\ Y'6i ZZU`c'Gc`X]Yfgž'U'[fci d'h\ Uh'\cbcfg'h\ Y

Y[UWm'cZ'5Zf]WUb'5a Yf]WUb'hfccdg"'Ch\ Yf'cmci g'Yj Ybhg']bWi XY
h\ Y'\$ bYhYYbh\ '<Yf]hU[Y'8 Um'Uh'\$Ja Yghck b'7ca a i b]hm'DUf_']b
8 Uj Ybdcfh'UbX'h\ Y'\$ bYhYYbh\ 'GhfYYh': Ygh]j U`'Uh'Cj Yf'h\ Y'6fUbW\
DUf_']b'6Ufhck "

5 F]WW HfUX]h]cb

5g'h\Y'a U]b'WYYVfUh]cb'cZ'\$\displayhYYbh\'XfUk g'bYUfYf'cb'\$\displayhY'%- \displayhY'\d

 $h\ Y\ 6\ Ufhck\ 7\ jj\]W7\ Yb\ h\ Yf\ k\]```\ c\ X\ TU\ Z\ Yg\ h]j\ Y\ ``i\ b\ W\ Yc\ b\ TU\ h\ ``W\ Tu\ b\ Y\ b\ Y$

6i h']h'XcYgb h'ghcd'h\YfY/cb'\$ bY'&\$žh\Y'K ca Yb'cZ'\$Zi YbW'BYhk cf_'k]``\c`X'h\Y]f'Ubbi U``\$ bYhYYbh\'; U`U'Uh'@U_Y'9j U
9j Ybh'7YbhYf']b'<U]bYg'7]hmž'Zc``ck YX'Vm'h\Y': fYYXca 'Aig]W
: Ygh]j U``cb'\$ bY'&%'Uh'@U_Y'9j U'7ca aib]hm'DUf_"'5g'\$ bY'k fUdg
i džh\Y'&\$&) ': fYYXca ': Ygh]j U``Uh'G]a dgcb'DUf_'7ca aib]hm
7YbhYf'cb'\$ bY'&, 'k]``dfcj]XY'U'ZfYY'd`UhZcfa 'Zcf'aig]W*ZccXž
UbX'\]ghcf]WU``YI\]V]hgž'fY]bZcfW]b['h\Y'Wca aib]hmg'Wca a]haYbh
hc'YXi WUh]cb'UbX'WY`YVfUh]cb"

@cc_]b[6UW_žA cj]b[: cfk UfX

±0.h\Y:\YUfhicZ:Dc`_:7ci bhmž:h\YgY:Yj Ybhg:bchicb`m:\][\`][\hi\ck ZUf:k Y:\Uj Y:Wca Y:Vi h:U`gc:Yl Ya d`]Zm:h\Y:k cf_:h\Uh:gh]````]Yg U\YUX":Hc:``YUfb:a cfY:cf:Z]bX:'UXX]h]cbU``; bYhYYbh\:Yj Ybhgž:fYUW\ci h:hc:gk U`g\4 h\Y`YX[Yf"Wca ":7Y`YVfUhYž:fYZYWbž:UbX:'c]b:h\Y Wca a i b]hm:Ug'k Y:fYWc[b]nY:; bYhYYbh\ g:f]W\:`Y[UWm:UbX:]hg'j]hU`]a dcfhUbWY:]b:ci f:Wc``YWh]j Y:'ci fbYm:hck UfX:Yei U`]hm:UbX:'1 gh]W\"

8YhU]`g	
Cfh	Dc`_'7cibhmž': `cf]XUž'lG5
EiY``Yb	• k k k "h\ Y`YX[Yf"Wca
	• k k k "i gUhc X Um"Wca
	• k k k "Vf]hUbb]WU"Wca

6Ygi WXYb G]Y i bg Ui Z. a Y]b!k]Yb bYh