

H]W_Yhj Yf_Ui Z'ZØf'@Òk Yb!D`UmcZZg ghUfhYh.'G]WX Yfb'G]Y'g]WX''Yhnh'=\fY D`ÀhnY'

5a '&* "'A U]'&\$&) 'ghUfhYh'XYf'H]W_Yhj Yf_Ui Z'ZØf'X]Y 6Ug_YhVU``'D`UmcZZg'XYf'@Òk Yb'6fUi bgWkkY]["'=bZcg'ni HYfa]bYb'i bX'?Ui Za Ò[`]Wk_Y]hYb"



6fUi bgWk k Y][ž'8 Yi hgWk `Ub X ! '8]Y '6 Ug_YhV U```@Òk Yb 6fUi bgWk k Y]['ghY\Yb'j cfY]bYa 'gdUbbYbXYb'D`Umc \mathbb{Z} !? Ua d \mathbb{Z} ''5 V A cbhU[ž'XYb'&- "'A U]'&\$&) ž'ghUfhYh'XYf'H]W_Yhj Yf_Ui Z'ZØf'XUg bÀWk ghY'< Y]a gd]Y``]b'XYb'D`Umc \mathbb{Z} g"'K À\fYbX'XUg'[YbUi 'Gd]Y`bcWk'b]Wkh'ZYgh[Y`Y[h']ghž'_ÒbbhYb'g]Wk'X]Y': Ubg'Ui Z'Y]b'ZØbZhYg Gd]Y``XYg'J]YfhY`Z]bU`Yg'[Y[Yb'X]Y': $\pm H$ CbY'K ØfnVi f['6Ug_Yhg cXYf'Ui Z'XUg'YfghY'< Y]a gd]Y``XYf'VYj cfghY\YbXYb'< U`VZ]bU`gYf]Y [Y[Yb'F Uh]cd\Ufa 'I `a 'ZfYi Yb"

8]Y'H]W_Yhg'g]bX'UV'gcZcfh']a 'Cb`]bYg\cd'gck]Y']b'XYf ?cbnYfh_UggY'GW\`cgg!5f_UXYb'Yf\À`h`]W\"'Ni XYa '_ObbYb'g]Y

$Gd]Y^hYfa]bY^]a^,VYfV^]W_$

- Gd]Y``%. `GcbbhU[ž`%, "`A U]`&\$&) ž`%*.' \$`I \fž`Jc`_gk U[Yb < U``Y
- Gd]Y``&. `A]hhk cW\ž'&%"`A U]`&\$&) ž'%, .' \$`I \fž'K ØfnVi f[YfhYWhU_Y`5F9B5`fbi gk Àfhggd]Y`Ł
- Gd]Y``'. GcbbhU[ž'&) "'A U]'&\$&) ž'%).\$\$'I \fž'Jc`_gk U[Yb < U``Y
- Gd]Y``(. '8]YbghU[ž'&+"'AU]'&\$&) ž'%, .' \$'I\f'fHYfa]b'bcW i bVYghÀh][hŁ
- Gd]Y``). `8cbbYfghU[ž'&-"`AU]`&\$&)ž'%).\$\$`I\f`fIbhYf JcfVY\U`hŁ

⇒a `D`Umc ZZIA cXi g`XYf`6Ug_YhVU```6i bXYg`][U`fb66@Ł`[]Vh`Yg`Ub X]YgYf`GhY``Y`bcW\`I b_`Uf\Y]hYbž'X]Y`X]Y`: Ygh`Y[i b[`Y]bYg [YbUi Yb`Gd]Y`hYfa]bg`VYY]bZi ggYb"`5``Y`Gd]Y`Y`k YfXYb``]j Y`VY] 8 mb`ØVYfhfU[Ybž'k Ug`X]Y`5i Za Yf_gUa _Y]h`Ui Z`X]Y`Ui ZfY[YbXYb 6Y[Y[bi b[Yb``Yb_h"

6Ug_YhVU```]b 8Yi hgW\`UbX`]a '5i ZgW\kib[

 $6 Ug_YhVU```[Yb]Y*h']b`8Yi hgWX`UbX`ni bY\a YbXY`6Y`]YVh\Y]h"`Gc `]Y[h'X]Y`Ni gWXUi YfnU\``]b`XYf`66@`VY]`Y]bYa `8i fWXgWXb]hh'j cb (", '*'dfc`Gd]Y``]b`XYf`GU]gcb`&$&' #&$&(`i bX`nY][h'Y]bYb _cbh]bi]Yf`]WXYb`5bgh]Y['gY]h`&$%' "\<math>\Rightarrow$ 'XYf`6Ug_YhVU```6i bXYg`][Ug]bX`a ca YbhUb`%, 'HYUa g`U_h]j ž`i bX`XYf`8Yi hgWXY`6Ug_YhVU``6i bXYg`][U\$ GlobX'j YfnY]WXbYh`ØVYf`&%- "\$\$\$`A]h[`]YXYfž'k Ug`X]Y KUWXghi a gXmbUa]_'i bX`XUg`[YghY][YfhY' \Rightarrow hYfYggY`Ub`X]YgYa Gdcfh'i bhYfghfY]WXh"

BYi YghY '9fZc`[Y'XYf'XYi hgWXYb'6Ug_YhVU``bUh]cbU`a UbbgWXUZhž k]Y'X]Y'6fcbnYa YXU]``Y'VY]'XYf'9i fc6Ug_Yh'&\$&&'i bX'X]Y G]`VYfa YXU]``Y'VY]'XYb'C`ma d]gWXYb'Gd]Y`Yb'&\$&(ž'gck]Y'X]Y D`Uhn]Yfi b['Ui Z'FUb['' 'XYf': \pm 65!K Y`hfUb[`]ghY'i bhYfghfY]WXYb'XUg DchYbh]U`i bX'X]Y'5hhfU_h]j]hÀh'j cb'6Ug_YhVU``']b'8Yi hgWX`UbX" 8]YgY'9fZc`[Y'\Y`ZYb'Ui WXž'X]Y'Ni gWXUi YfnU\`Yb'ghYh]['ni ghY][Yfb'i bX'X]Y'6YXYi hi b['XYf'66@']a 'gdcfh`]WXYb'K YhhVYk YfV \Yfj cfni \YVYb"

K À\fYbX'g]W\'X]Y'6Ug_YhVU```@Òk Yb'Ui Z'X]Y'YbhgW\Y]XYbXYb D`UmcZZIGd]Y`Y'j cfVYfY]hYbž'_ÒbbYb': Ubg'gck c\``X]Y'Gd]Y`Y'`]j Y j YfZc`[Yb'U`g'Ui W\'Xi fW\'XYb'H]W_Yhj Yf_Ui Z'Ub'XYf'Ui ZfY[YbXYb 5ha cgd\ÀfY'hY]`bY\a Yb"

8 Y hU]`g	
J c f ZU``	Gcbgh][Yg
Cfh	6fUi bgWkkY][ž'8Yi hgWk`UbX
Ei Y``Yb	k k k "h!cb`]bY"XY
	k k k "VUg_YhVU``!`cYk Yb"XY
	VUg_YhVU``%\$\$"XY

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