

8]Y'VYghYb'GY\Ybgk ØfX][_Y]hYb']b A ØbWXYb

A Øb WX Y b ']gh'Y]bY'XYf'gWX ObghY b 'GhÀXhY'8 Y i hgWX `Ub Xg'i bX j YfZØ[h'ØVYf'j]Y'Y']bhYfYggUbhY'GY\Ybgk ØfX][_Y]hYb"'J cb \]ghcf]gWX Y b; YVÀi XYb'V]g'\]b ni 'a cXYfbYb'?i bghk Yf_Yb i bX'gdY_hU_i `ÀfYb'5i gg]WX hgdi b_hYb']gh'ZØf'YXYb'Yhk Ug XUVY]"'<]Yf'g]bX'Y]b][Y'XYf'VYghYb'GY\Ybgk ØfX][_Y]hYb Ui Z[Y']ghYhz'X]Y'a Ub']b'A ØbWXYb'Yf'YVYb'_Ubb"'A Uf]Ybd`Uhn 8Yf'A Uf]Ybd`Uhn]gh'XUg'< YfnghØW_A ØbWXYbg'i bX'Y]bY'XYf a Y]ghVYgi WX hYb'GY\Ybgk ØfX][_Y]hYb"'<]Yf'Z]bXYb'G]Y j YfgWX]YXYbY'; YVÀi XYz'XUfi bhYf'XUg'5`hY'FUh\Ui gz'XUg BYi Y'FUh\Ui g'i bX'XUg'; `cW_Ybgd]Y`"'8Yf'D`Uhn']gh'Ui WX'Y]b]XYU'Yf'C fhz'i a 'X]Y'5ha cgd\AfY'XYf'GhUXh'ni [Yb]Y»Yb'i bX X]Y'j]Y'Yb'; YgWXAZhY'ni 'VYgi WXYb"'GWX`cgg'Bma d\YbVi f[']gh'Y]bY'XYf'VYfØ\a hYghYb GY\Ybgk ØfX][_Y]hYb'A ØbWXYbg'/ Ua d\YY`]d/



C`ma d]UdUf_'A ØbWXYb

 $\label{eq:continuous_series} $$ \int YfZØ[h'ØVYf'j]Y`Y']bhYfYggUbhY'GY\Ybgk ØfX][_Y]hYb"'Jcb $$ \int ghCf]gWXYb'; YVÀi XYb'V]g'\]b'ni 'a cXYfbYb'?i bghk Yf_Yb'i bX gdY_hU_i `ÀfYb'5i gg]WXhgdi b_hYb']gh'ZØf'^YXYb'Yhk Ug'XUVY]"'<]Yf g]bX'Y]b][Y'XYf'VYghYb'GY\Ybgk ØfX][_Y]hYb'Ui Z[Y`]ghYhž'X]Y'a Ub lb'A ØbWXYb'Yf`YVYb'_Ubb"$

A Uf]Ybd`Uhn

8 Yf'A Uf]Ybd`Uhn']gh'XUg'< YfnghØW_'A ØbWXYbg'i bX'Y]bY'XYf
a Y]ghVYgi WXhYb'GY\Ybgk ØfX][_Y]hYb"'<]Yf'Z]bXYb'G]Y
j YfgWX]YXYbY'; YVÀi XYŽ'XUfi bhYf'XUg'5`hY'FUh\Ui gž'XUg'BYi Y
FUh\Ui g'i bX'XUg'; `cW_Ybgd]Y`"'8Yf'D`Uhn']gh'Ui WX'Y]b']XYU`Yf'Cfhž
i a 'X]Y'5ha cgd\ÀfY'XYf'GhUXh'ni '[Yb]Y»Yb'i bX'X]Y'j]Y`Yb
; YgWXÀZhY'ni 'VYgi WXYb"



A Uf]Ybd`Uhn

GWX`cgg'Bma d\YbVif[

8 UgʻGW\`cggʻB ma d\YbVi f[ˈ]ghʻY]bYʻXYfʻVYfØ\a hYghYbGY\Ybgk ØfX][_Y]hYbʻA ØbW\Ybgʻi bXʻY]bʻVY`]YVhYgʻN]Y``ZØfHci f]ghYb"'9gʻk i fXYʻ]a '%+"'\\\J\f\i bXYfh`YfVUi hii bX`VY\YfVYf[ha Y\fYfY`A i gYYbžʻY]bYbʻgW\`ObYbʻDUf_ii bX`Y]bYbʻGYY"'8 UgGW\`cggʻ]ghʻY]bʻA i ggʻZØfʻYXYbžʻXYfʻY]bYbʻHU[']bʻA ØbW\YbjYfVf]b[Ybʻa ÒW\hY"



GWX`cgg'Bma d\YbVi f[

9b[`]gW\Yf'; UfhYb

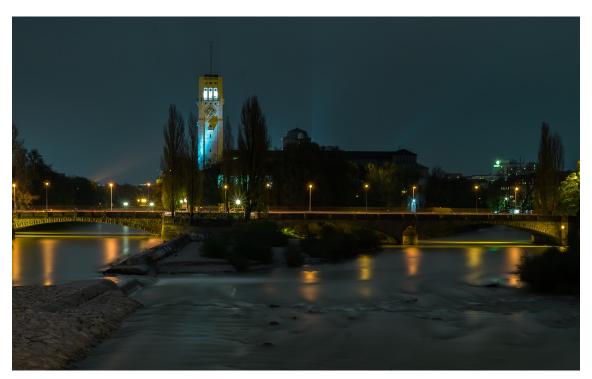
 $8 \ Yf'9b[\ `]gWXY'; \ UfhYb']ghY]bYf'XYf'[fO) hYb'GhUXhdUf_g'9ifcdUgibX'Y]b'k i bXYfVUfYf'Cfhž'i a 'X]Y'GWXObY]h'XYf'BUhif'ni [Yb]Y) Yb'''<]Yf'Z]bXYb'G]Y'Y]b][Y'XYf'gWXObghYb'GYYb'ibX K UggYfZA``Y'XYf'GhUXhž'gck]Y'j]Y`Y'Gdcfhl'ibX : fY]nY]ha O[`]WX_Y]hYb'''8Yf'DUf_']gh'Y]b'VY`]YVhYg'N]Y``ZØf GdUn]Yf[Åb[Y'ibX'D]W_b]W_g''$



9b[`]gWXYf'; UfhYb

8 Yi hgWX Yg A i gYi a

8 Ugʻ8 Yi hgWX YʻA i gYi a ʻ]ghʻY]b YgʻXYfʻ[fÒ» hYbʻhY WXb]gWX Yb A i gYYbʻXYfʻK Y`hʻi bXʻY]bʻA i ggʻZØfʻ6 Ygi WX Yfʻ]bʻA Øb WX Yb''<]Yf YfZU\fYbʻG]YʻU``YgʻØVYfʻX]YʻXYi hgWX Yʻ; YgWX]WX hYʻi bXʻHY WXb]_ž XUfi bhYfʻX]Yʻ9bhk]W_`i b[ʻXYfʻ9]gYb VU\bžʻXYfʻ5 i hca cV]`]b Xi ghf]Y i bXʻXYfʻ@ʻZhZU\fh"ʻ9gʻ[]Vh'Ui WXʻY]b][Yʻ]bhYfU_h]j Yʻ5 i gghY``i b[Ybž X]YʻX]Yʻ[UbnYʻ: Ua]`]Yʻi bhYf\U`hYb"



8 Yi hgWX Yg A i gYi a

C`ma d]UdUf_

8 Yf'C`ma d]UdUf_']gh'Y]b Yg'XYf'VY_UbbhYghYb'K U\fnY]W\Yb A ØbW\Ybg'i bX'Y]b'Cfhž'Ub'XYa 'a Ub'X]Y'gdcfh`]W\Y'5ha cgd\ÀfY XYf'GhUXh'Yf`YVYb'_Ubb"'<]Yf'Z]bXYb'G]Y'j]Y`Y']bhYfYggUbhY GY\Ybgk ØfX][_Y]hYbž'XUfi bhYf'XUg'C`ma d]UghUX]cbž'XYf C`ma d]Uhi fa 'i bX'XUg'C`ma d]UVUX"'8Yf'DUf_']gh'Ui W\'Y]b VY`]YVhYg'N]Y`'ZØf'Gdcfhj YfUbghU`hi b[Yb'i bX'?cbnYfhY"



C`ma d]UdUf_

<cZVfÀi\Uig

8 Ugʻ<cZVfÀi \Ui gʻ]ghʻY]bYgʻXYfʻVYfØ\a hYghYbʻ6]Yf\Ài gYfʻXYf K Y`hʻi bXʻY]bʻA i ggʻZØfʻYXYbʻ6Ygi W\YfʻA ØbW\Ybg"<]YfʻZ]bXYbʻG]Y Y]bYʻY]bn][Ufh][Yʻ5ha cgd\ÀfYž']bʻXYfʻG]YʻY]b][YʻXYfʻVYghYbʻ6]YfY XYfʻGhUXhʻdfcV]YfYbʻ_ÒbbYbžʻgck]Yʻ@j Y!A i g]_ʻi bXʻhfUX]h]cbY``Y XYi hgW\YʻGdY]gYb"ʻ9]bʻ6Ygi W\`]a `<cZVfÀi \Ui gʻ]ghʻY]bʻA i ggž k YbbʻG]YʻA ØbW\YbʻYf`YVYbʻa ÒW\hYb"



<cZVfÀi\Uig

J]_hi U`]Yba Uf_h

8 Yf'J]_hi U`]Yba Uf_h']gh'Y]b'k i bXYfVUfYf'C fhži a 'X]Y'J]Y`ZU`h'XYf a ØbW\bYf'? ØW\Y'ni 'Yf_i bXYb"'<]Yf'Z]bXYb'G]Y'Y]bY'J]Y`nU\`'Ub Zf]gW\Ya 'C Vghž'; Ya ØgYž':]gW\'i bX': `Y]gW\'Ui g'XYf'FY[]cb"'8Yf A Uf_h']gh'Ui W\'Y]b']XYU`Yf'C fhži a 'X]Y'`c_U`Yb'? Ògh`]W_Y]hYb'ni dfcV]YfYb'i bX'Y]b'V]ggW\Yb'9]b\Y]a]gW\Yg'ni '_Ui ZYb"



J]_hi U`]Yba Uf_h

5``]Ubn'5fYbU

8]Y'5``]Ubn'5fYbU']gh'XUg'<Y]a ghUX]cb'XYg': 7'6UmYfb'A ØbWXYb i bX'Y]bYg'XYf'gdY_hU_i `ÀfghYb'GhUX]Yb'XYf'K Y`h"'<]Yf'Z]bXYb'G]YY]b][Y'XYf'VYghYb': i » VU``gd]Y`Y'XYf'GhUXhž'gck]Y'Y]b][Y'XYf gWX ÒbghYb'D`ÀhnY'XYf'K Y`h"'5i WX'k Ybb'G]Y'_Y]b': i » VU``ZUb'g]bXž]gh'Y]b'6Ygi WX']b'XYf'5``]Ubn'5fYbU'Y]b'A i ggž'k Ybb'G]Y']b A ØbWXYb'q]bX"



5``]Ubn'5fYbU

8 Y hU1`c

6Ygi WXYb G]Y i bg Ui Z Y]bY!fY]gY "XY