



ARTS1060

ϕhfcXi Wjcb'hc':]'a 'Gh X]Yg

HYfa 'Cby''##'&\$&%

7ci fgY`Cj Yfj]Yk

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B Ua Y	9a U]	5j U]`UV]]m	@cW]h]cb	D\cbY
; 9CF; 9 ?CI J 5FCG	["_ci j Ufcg4 i bgk "YXi "Ui	9a U]`Zcf'Ub Uddc]b]a Ybh	F a `&\$*ž`Yj Y` &'K YVghYf 6i]X]b[-',) `(, *%
A ⇨ < 9@@9 @5B; : CF 8	a "Ub[ZcfX4 i bgk "YXi "Ui	9a U]`Zcf'Ub Uddc]b]a Ybh	F a " %%Dž 'Yj Y` K YVghYf 6i]X]b[-',) `((, -

GW\cc`7cbhJWw]bZcfa Uh]cb

GW\cc`cZ\hY'5fng'UbX'A YX]U

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D\cbY. f\$&Ł-' ,) `(,) *

9a U]: [gUa 4 i bgk "YXi "Ui](#)

K YVg]hY: [k k k "Ufng"i bgk "YXi "Ui #gUa](#)

H\Y'GW\cc`cZ\hY'5fng'UbX'A YX]U'k ci `X`_]Y`h' F YgdYWw' m5W_bck `YX[Y`hY`HfUX]h]cbU`7i g]cX]Ubgž

7ci fgY'8YHJ]`g

7fYX]h'Dc]bHg '*`

Gi a a UfmcZ'h\Y'7ci fgY

h'h]g'Wci fgY'mci 'k]''YUfb'YggYbh]U'h'Wk.b]ei Yg'UbX'j cWJVi 'UfmZcf'UbU'mg]b[žYI d'U]b]b['UbX

h\Y`hja Y`Wca YgZ[YhfYUXmZcf`h\Y`YI Ua ""H\Y`fYei]fYX`fYUX]b[g`dfcj]XY`U`VUg]g`Zcf`mci f`ghi Xn`H\Y`
I`BGK`"]VfUfm\Ug`U`[ccX`fUb[Y`cZVcc_g`UbX`^ci fbU`g`cb`W]bYa UZ`h\Uhmci`WU]b`i gY`hc`Yb\UbVW`mci f`
_bck`YX[Y`UbX`i bXYfgfU]bX]b["

&"H\YfY`]g`U`k`YY`_m`YVW`i`fY`Ugh]b[`Zcf`Ufci bX`%)` \`ci fg""H\Y`di fdcgY`cZ`YVW`i`fYg`]g`bchg]a d`mhc`
dfcj]XY`mci`k`]h`]bZcfa`U]cb""F`U`h`YfZ`YVW`i`fYg`gYfj`Y`hc`XYZ]bY`h\Y`ghfi`W`i`fY`cZ`h\Y`W`i`fgYz`]b]fcXi`W`_Ym`
W`c`b`W`d]gZ`hc`gYh`h\Y`U`[YbXU`Zcf`X]gW`gg]cbZ`UbX`hc`dfcj]XY`g][`bdcg]g`hc`\Y`d`mci`h`fci`[`\`h\Y`YI`dYf]YbVW`
cZgh`Xn`8`i`f]b[`h\Y`YVW`i`fYg`g`c`f`h`Z`a`W]dg`k`]`VY`g`c`k`b`hc`]`i`ghfU]Y`_Ymidc]b]g`UbX`hc`a`cXY`h\Y`
dfUW]VW`g`cZ`W`cgY`Z`a`UbU`mg]g`mci`k`]`VY`YUfb]b[""H\YfY`k`]`U`gc`VY`a`ca`Yb]g`k`YfY`mci`k`]`VY`]bj`]hX`
hc`UW]j`Y`m`Yb[U[Y`k`]h`h\Y`YVW`i`fYf`VmUg_]b[`UbX`Ub]gk`Yf]b[`ei`Ygh]cbg" Hc`[Yh`h\Y`a`cghci`hcZ`YVW`i`fYgZ`
mci`bYXX`hc`hU`Y`Ub`UW]j`Y`fc`Y`]b`h\Ya`""H\]g`]bj`c`]Yg`^`[]`b[`h\YfY`hUg_g`k`\]Y`mci`"]gh]b.

•""Mci`bYXX`hc`Xa`^ai`UbX`_S]`WeW`eWaXh\Y`YVW`i`fYf`g`]bY`cZUf[i`a`Yb]f`

•""Mci`h`Uj`Y`hc`fZ[]`STagf`k`h`U]g`VY]b[`gU]X`"

•""Mci`g`l`ci`X`fS]`W`afW`e`"

<YfY`UfY`h`c`\]b]g`Zcf`a`U_]b[[ccX`i`gY`cZ`YVW`i`fYg`"" :]fg]Z`UbU`mgYz`\cbYghmZ`mci`f`fYUW]cbg`hc`YVW`i`

5ggYgga Ybh

5ggYgga YbhHUg_g

5ggYgga YbhHUg_	K Y][\h	8i Y'8UH	Gh XYbh@YUfb]b[Ci hWta Yg'5ggYggYX
Hi hcf]U`DfYgYbhUHcb`	%)	Bch5dd`]WUV`Y	%ž&
GYei YbW`5bU`mg]g`	')	%) #\$(#&\$&%`%&.\$\$`DA	%
:]bU`9I Ua`) \$	' \$\$(#&\$&%`%%\$\$`DA	%ž&ž'

K \Uhmci 'bYYX'hc'Xc'hc'Wca d'YHY'h'j'g'fUg_.

% '8]U'c[i Y. 'k f]HY'Xck b'h'cgy' _YmigtUHYa Ybhg'UbX'X]U'c[i Y'YI WkUb[Yg'hUh]i a]bUHY'W'bfU'
 Y'Ya Ybhg'cZWXUfUWYf'cf'h'Uha chj UHY'gca Y'gmi]gh]Wgk]hX""6i h]b'h'Y'WUgY'cZX]U'c[i Y
 YI WkUb[Yg'hUh]mci 'XYYa 'Ug'dfY]a]bUfmcf']bW]XYbHU'Z]h]g'UWVW'dHUV'Y'hc'g]a d'migi a a Uf]nY'h'Y
 YI WkUb[Y""6i hVY'WUfYZ'""8]U'c[i Y'h'Uhc]b'Z]fgh\YUf]b['a UmigYYa ']bW]XYbHU'WUbd'f'c]]XY'Wfi V]U'
 WkUfUWYf]bg][\h'Mci '8C'BC'H'bYYX'hc'fYdYUhiU""X]U'c[i Y'k cfX'Z'cf'k cfX']b'mci f'Ugg][ba Ybh'
 &" D'UW'cZ'h'Y'g'Yei YbW']b'h'Y'Z]a . 'Mci 'a i ghk UHk'h'Y'Ybh]fY'Z]a 'Ug'k Y""Ug'h'Y'g'Yei YbW""H\Y
 a cfY'h]a YgZ'h'Y'VYHY""H\]g'k]""U'ck 'mci 'hc'fYZYW'h'c'h'Y'VfcUXYf]a d']W]h]cbg'cZ'h'Y'g'W'by"
 ' " I g'Y'h'Y'YI Ua d'Yg'cZdUghUgg][ba Ybhg'Uj U]UV'Y'cb'A ccX'Y'Ug']bX]W]h]cbg'cZ\ck 'hc'UddfcUW
 h'jg'YI YfW]gY""H\YmUfY' bch\UfX'UbX'Z]gha cXY'g"
 (" 5'h'ci [\ 'bcha UbXUhc'f'mZ'i gY'g'W'YYb[fUVg'hc']bX]W]h]hc'hc'h'Y'fYUXYf'h'Y'g'chVY]b['X]gW'ggYXZ
 \ck Y] YfZ'Xc' bch'Y'h'h'Y'g'Y'fU_Y'd'UW'cZ'mci f'ck b'XYgW]d]h]cb"
)" :]a ']g'Ub'Ui X]c]j]gi U'a YX]U""A U_Y'gi fY'h'U'h'h'Y'i gY'cZ'gci bX']g'X]gW'ggYX']b'mci f'g'Yei YbW'
 UbU'm]g]g" @]ghYb]b['hc'h'Y'W]d'k]h' \YUXd\cbYg'WU'b\Y'd'X]gh]b[i]g\Y'Ya Ybhg']b'h'Y'gci bXgWUdY"
 5'h'fbU]h] Y'nZ'h' fb]b['Xck b'h'Y'gci bX'WU'b\Y'd'mci 'hc'Z'W'g'cb'j]gi U'dU'h'f'bg'UbX'WkUb[Yg']b
 a]gY!Yb]gW'by""A U_Y'gi fY'h'Uhmci '\Uj Y'W'ffYW'h]m]XYbh]Z]YX'h'Y'hc'U'bi a VYf'cZ'g\ch]g']b'h'Y'
 Ybh]fY'g'Yei YbW'UbX'h'U'h'Y'UW'g'ch]g'W'ffYW'h]m]XYg][bU'h'XZ'Z'f'YI Ua d'Y'Z'g\ch%Z'g\ch&Y'HW
 * " D'YUgY' bch'Y'h'U'h'h'j'g']g'BC'H'U'fYgYUfW' fUg_""K \Uha U'h'f'g']g'h'Uhmci 'XYa cbgh'fU'h' mci f'c'K B
 W'cgY'j]Yk]b['Z'XYgW]d]h]cbZ'UbU'm]g]UbX']b]h'fd'fYU'h]cb'cZ'h'Y'g'Yei YbW'""<k Yj Yf]Z'mci 'Xc
 \UddYb'hc'Xc'UbmfYgYUfW']b'Vcc_gZ'ci fbU'gZ'k YVg]h'gZ'V'c[g'Y'HW'mci 'A I GH'dfc]]XY
 Uddfcdf]U'h'g'W'c'Uf'mfYZ'fYbW]b[]bW' X]b['k \Yb'mci 'UfY'dUfUd\Ug]b['cf'X'fUk]b['Ub']XYU'Z'ca
 gca YcbY'Y'gY"
 + " #]g'U'gc'j Yfm=A DC F H5BH'hc'fYa Ya VYf'h'U'h'h'j'g']g'Ub' =B 8 =] 8I 5@UggYgga Ybh]Ug_z'gc'mci
 a i ghbch'W'U'VcfU'h'c'f'k cf_'hc[Y'h'Y'f'k]h' 'Ubmich'Y'f'gh' XYbhk \Yb'Xc]b['h']g'UggYgga Ybh]Ug_ "
 8c]b['gc'a Um'W'cbg]h'i h'Y'5WUXYa]WA]g'W'cbXi W'iUbX'k]""VY']bj Ygh][U'h'X'U'W'W'fX]b['hc'h'Y'
 D'U[]Uf]ga 'UbX'5WUXYa]WA]g'W'cbXi W'iDc']W'iUbX'D'f'c'W'Xi fYg' "#a i ghVY'%\$\$i 'mci f'c'K B'k cf_ "

5ggYgga Ybh7 f]h'f]U

% 8YHU]YX'cVgYfj U]cb'UbX'XYgW]d]h]cb'cZ'g\ch]g"
 &" H\ci [\h'z' 'UbX'WYUf'XYgW]d]h]cb'cZa YUb]b["
 ' " 5h'Ybh]cb'hc'dfcXi W]cb'h'W]b]ei Yg#Z'fa U'ei U']h]Yg'cZ]a "
 (" I g'Y'cZ]a 'gh' X]Yg'a Y'h'cXg'UbX'h'fa g"
)" 5h'Ybh]j YbYgg'hc'a U'h'f'g'cZUWUXYa]W]bhY[f]h'm'

5ggYgga Ybh' . :]bU'9I Ua

GHUfhXUHY . &* #\$(#&\$&%\$- . \$\$'5A

8YHU]g.

Hk c'f&k\ci fg"

5'd\U!bi a Yf]W[fUXY"

) " 6cc_žZ'a`h]hYg'UbX'bUa Yg'cZ'ei fbU'g'a i ghVY']b']hU']Wg" 'H]hYg'cZ'ei fbU' Ufh]WYg']b']bj YfhYX W'a a Ug"

* " ɁW' XY' UhhY' YbX' cZYUW' YggUmU']ghcZK cf_g' 7]hYX' hc']bX']WU' h' gYV' bXUfmiY' hg' i gYX']b' hY k f]h]b['cZ' hY' YggUm' 'H\]g']gha i gh]bW' XY' Z' 'V]V']c[fUd\]WXYH]]g' UbX' W' bZ' fa' hc' Y']hYf' cZ' hY h' c' fYW' [b]gYX' ghmYg' " Ɂ]g' af]bW' XYX']b' hY' YggUm' k cfX' W' ei bh'

+ " 5' h' ci [\ ' gh' XYb' h' g' \ ci ' X' gh]W' hc' hY' XYg] [bU' hYX' k cfX' Yb [h' ž' YggUm' g' h' U' h' U' fY' fU' h' U' a' U'] a' i' a' Ɂ % \$ i ' c' j' Yf' c' f' i' bXYf' hY' g' h' d' i' ' U' hYX' Yb [h' k'] ' b' c' h'] bW' f' U' d' Y' b' U' m' i'

, " K f]hY' b' a' U' hYf' U' gi' Va']hYX' Z' c' f' hY' ' G' Y' ei' Y' b' W' ' 5' b' U' m' g] g' c' f' H' i' hc' f]U' ' D' fYg' Y' b' h' U' h' c' b' W' b' b' c' h' VY' f' Y' i' gYX']b' hY' YggUm' g' U' g' h'] g' W' b' g' h' h' h' Y' g' g' Y' Z' d' U' [] Uf]ga "

- " Ɂ' h' Y' ei' Y' g' h' c' b' g' ž' gh' XYb' h' k'] ' VY' U' g' YX' hc' fYZ' f' hc' XYH]]g' Z' ca' ' Z' a' g' g' W' fY' b' YX' Xi' f]b [' h' Y' W' ei' fgY" H\]g']bW' XYg' V' c' h' h' Y' k' Y' Y' _' m' i' g' W' fY' Y' b] b [g' U' b' X' h' Y' ' Z' a' g' h' U' h' k' Y' fY' Y' i' W' f' d' h' YX' Xi' f]b [' h' Y' ' Y' W' h' fYg"

%" I bXYf' bc' W' f' W' a' g' h' U' b' W' g' g' \ ci ' X' m' ei ' X'] g' W' g' g' m' ei ' f' k' c' f' _' k'] h' U' b' c' h' Y' f' gh' XYb' h' ' G' a'] Uf]hYg' VYh' Y' Y' b' d' U' d' Y' f' g' k'] ' VY'] a' a' YX] U' hY' m' i' fY' Z' Y' f' fYX' hc' hY' g' W' c' c' ' g' Y' h'] W' g' c' Z'] W' f' Z' c' f'] b' j' Y' g' h' [U' h' c' b"

%%" C bW' h' Y' Y' i' U' a' ' d' U' d' Y' f' \ U' g' VY' Y' b' fY' Y' U' g' YX' m' ei ' g' \ ci ' X' c' b' m' W' b' h' U' W' h' m' ei ' f' h' hc' f' hc'] b' Z' c' fa' \ Y' f' A'] a' ' c' Z' a'] g' U' X' j' Y' b' h' fY' c' f'] ' b' Y' g' g' " 8' c' b' c' h' Y' a' U']' g' Y' Y' _' b [' U' X' j'] W' ' c' b' — c' f' W' U' f'] Z' W' h' c' b' c' Z' — U' d' U' f' h' W' ' U' f' ei' Y' g' h' c' b"

%&" 9' j' XYb' W' ' c' Z' d' U' [] Uf]ga' k'] ' VY' XYU' h' k'] h'] b' U' W' W' c' f' X' U' b' W' ' k'] h' ' i' b' j' Y' f' g'] m' i' d' c' '] W' h' ' D' Y' U' g' Y' Y' b' g' i' fY' h' U' h' m' ei ' \ U' j' Y' fY' U' X' U' b' X' i' bXYf' g' h' c' X' h'] g' d' c'] W' h' d' f'] c' f' hc' gi' Va'] h'] b [' k' c' f' _' Z' c' f' U' g' g' Y' g' g' a' Y' b' h'

[\ h' d' g' # g' h' XYb' h' i' b' g' k' " YX' i' " U' i' # d' U' \[\] Uf\]ga'](#)

5 hYbXUbW`F Yei]fYa YbHg

Gh XYbHg`UFY`ghfcb[`mYbWci fU[YX`hc`UhhYbX`U`WUggYg`UbX`fYj]Yk ``YWhi fY`fYWcfX]b[g"

7 ci fgY`GWXYXi `Y

[J \]Yk`WUgg`hja`YhUV`Y](#)

H]a`YhUV`Y`

8UhY	HmdY	7cbhYbh
K YY_%`%`): YVfi Ufm!`%`: : YVfi Ufm	@YWhi fY	hfcXi W]cb`hc`hY`7 ci fgY
	GWYYb]b[6a fZWD [YZfFZ[Y fGd]_Y`@YYz%- , -L`%&) `a]bg"
	Hi hcf]U`	Hi hcf]U`F YUX]b[g`A Uf]`mb` : UVYz`Dc`]h]W` 7]bYa U`Gd]_Y`@YYf]6a fZWD [YZfFZ[Yzf]b`5`aeWk l`SfUZW 8[^_e, 3` ;`fcbVgUf[a` fa fZW3d`aX @SdSf]hW8[^_FWUZ` [cgW/6Yf_Y`Ym`l` b]j Yfg]micZ 7 U`]z`fb]U`DfYggz`&\$\$(L`%`%d`&\$`*/## Yj]Yk`g`cZ6a fZWD [YZfFZ[Yh`]b`A Uf`_F Y]X`fYX`L`E`b[] W>VWw`i6a fZWD [YZfFZ[Yl`/7 Ua Vf]X[Y.`7 Ua Vf]X[Y`l` b]j Yfg]m DfYggz`%` - +L`%` (!%) &"
K YY_`&.`&&`: YVfi Ufm!`&`*`: : YVfi Ufm	@YWhi fY	? [eWzW`zeU` `W
	GWYYb]b[DWTWl` [fZagf`S`5`SgeW

F Ygci fWg

DfYgWf]VYX`F Ygci fWg`

D`YUgY`gYY`h`Y`W`i fgY`A ccX`Y`g]h`

F YWca a YbXYX`F Ygci fWg

D`YUgY`gYY`h`Y`W`i fgY`A ccX`Y`g]h`

7ci fgY`9j U`i Uh]cb`UbX`8Yj Y`cda Ybh

K Y`hU`Y`ghi XYbhZYXVUW`_]bhc`UW`i bhk` \Yb`fYj`]Yk`]b[`h`Y`W`i fgY`YUW`"m`Uf`"C j Yf`h`Y`"UghZYk`"m`Ufgz`
k Y` \Uj Y` UXXYX`hc d]Wg`cb`gci bX`UbX`YX]h]b[`]b`fYgdcbgY`hc`ghi XYbhZYXVUW`"K Y` \Uj Y`U`gc`fYj`]gYX`
UggYgga Ybhg`fYb[h`UbX`bi a VYfE`]b`fYgdcbgY`hc`ZYXVUW`_`cb`h`Y`Hf]a YghY`f`h]a YhUV`Y"

Gi Va]gg]cb`cZ5ggYgga YbhiHUg_g

Hi fb]h]b`Gi Va]gg]cb

Ʒmci`YbWci bHYf`U`dfcV`Ya`k` \Yb`UHYa` dh]b[`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhiHfci`[`\`Hi`fb]h]b`z`d`YUgY`
HY`Yd`cbY`9I`HYfbU`Gi`ddcfhcb`-`,`)`"``"``%cf`Ya`Uj`h`Ya`cb`YI`HYfbU`HY`hgi`ddcfh4`i`bgk`"YXi`"Ui`"Gi`ddcfh`
`ci`fg`UfY`,`.\$\$Ua`-`-%\$.\$\$da`cb`k`YY`XUmg`UbX`-`.\$\$Ua`-`).\$\$da`cb`k`YY`YbXg`f1`*)`XUmg`U`mY`Uf2`Ʒmci`
UfY`i`bUV`Y`hc`gi`Va`]hmc`i`f`Ugg][`ba`YbhiXi`Y`hc`U`ZU`i`hk`]h`Hi`fb]h]b`mci`a`UmUdd`mZc`f`Ub`YI`HYbg]cb`z`Vi`hmc`i`
a`i`ghfYhU]b`mci`f`h]W`Yhbi`a`VYf`Zca`9I`HYfbU`Gi`ddcfhfU`cb[`k`]h`Ubmc`h`Yf`fY`Yj`UbhXcW`a`Ybhtg`hc`
]bWi`XY`Ug`Yj`]XYbVW`hc`gi`ddcfhmc`i`f`YI`HYbg]cb`Udd`]W]h]cb`"Ʒmci`Ya`Uj`9I`HYfbU`Gi`ddcfhmc`i`k`]`
Ui`hca`U]WU`mifYW]j`Y`U`h]W`Yhbi`a`VYf`z`Vi`h]Zmci`HY`Yd`cbY`mci`k`]`bYYX`hc`gdYW]Z]WU`mUg`Zc`f`cbY`"
Hi`fb]h]b`U`gc`dfcj`]XYg`i`dXUH`g`cb`h`Y]f`gmghYa`g`hU`h`g`cb`Hk`]hYf`"

;`YbYfU`mz`UggYgga`YbhiUg_g`a`i`ghVY`gi`Va`]hYX`Y`YWfcb]WU`mj`]U`Y]h`Yf`Hi`fb]h]b`cf`U`A`ccX`Y`
Ugg][`ba`Ybhi`h]b]bg]h]b]Wg`k`YfY`h`g`]g`bchdcgg]V`Yz`]hk`]`VY`ghUHYX`cb`mci`f`Wci`fgY`g`A`ccX`Y`g]h`k`]h`
U`HYfbU]h]`Y`gi`Va`]gg]cb`XYhU]g`"

:`cf]bZcfa`U]cb`cb`\ck`hc`gi`Va`]hUgg][`ba`Ybhtg`cb]bY`j`]U`A`ccX`Y`.\`hhdg`#gh`XYbhi`bgk`"YXi`"Ui`#ck`!
gi`Va`]hUgg][`ba`Ybhta`ccX`Y`"

5 WUXYa]W< cbYgmiUbX`D`U[]Uf]ga

D`U[]Uf]ga `]g`i`g]b[`h`Y`k`c`f`X`g`c`f`]X`Y`U`g`c`Z`c`h`Y`f`g`i`U`b`X`d`f`Y`g`Y`b`h]b[`h`Y`a` `U`g`m`c`i`f`c`k`b`" `#`W`U`b`h`U`_`Y`a` `U`b`m`
Z`c`f`a`g`Z`Z`c`a` `X`Y`]V`Y`f`U`h`Y` `W`X`Y`U`h]b[`h`c` `U`W`W`Y`X`Y`b`h`U` `m`i`W`c`d`m]b[`Z`c`a` `U`g`c`i`f`W` `k`]h`c`i`h`U`W`_`b`c`k` `Y`X[`Y`a` `Y`b`h`

I`B`G`K` `[`f`c`i`d`g`d`U[]Uf]ga `]b`h`c` `h`Y` `Z`c` `c`k`]b[`W`U`h`Y`[`c`f`]Y`g.

- i bXYfgHUbX'mci f'f][\hg'UbX'fYgdcbg]V']hYg'Ug'U'gh XYbhUhl BGK
-

5 WUXYa]W=Zcfa Uh]cb

: cf`YggYbh]U`gh XYbh]bZcfa Uh]cb`fY`UH]b[`fc.

- fYei Ygh]Zcf`YI H`bg]cb/
- `UH`gi Va]gg]cbg[[i]XY`]bYg/
- fYj]Yk `cZa Uf_g/
- I BGK `<YU`h`UbX`GUZY`mdc`]WYg/
- YI Ua]bUH]cb`dfcW`Xi fYg/
- gsp`e`c`vad]Y6`h]s`b`e`r`02000`hg`BT`0`T`r`0`00002`w`ET`BT`79.215685`02`590572`Td [(r e 02 e w o