

SRAP5004

Dc`]Whž'5VWcibhUV]`]hmUbX; cjYfbUbW

HYfa 'Hk c''#'&\$&%

7ci fgY[.]Cj Yfj]Yk

7ci fgY 8YHJ] g

7 fYX]h'Dc]bhg'*

Gi a a UfmcZh\Y 7ci fgY

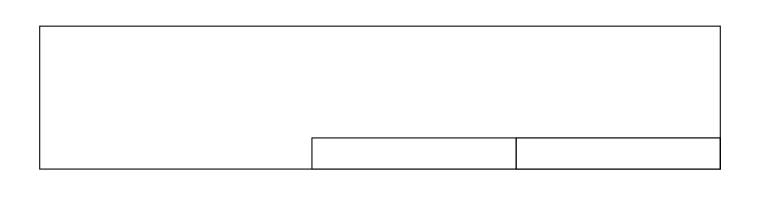
H\]Y`WcHnng`weilonyYoloa joblonkxionwoologic by book inc`\c`x`dc`jnnoghto_Ynog toung fouwy gopyu`xio dwolfwgmya[zcfcWygo}
jowixjo[`Uxa]ojghtuhjY`ukz*Axjwju`fyj]Ykzca vixgaYoz`Uixjncfg![YbYfU`zduf]UaYohufmwcaajhhYygz
Ubhj!Wcffidhjcb'Wcaa]ggjcbgzzYYxca`czjozcfaUhjcb'Ubx`k\jghYv`ckYf'dfchYwncbg"`H\Y`WcifgY`YId`cfYg
XjzyfYbhh\YcfYhjwu``UddfcUwxyg`nc`UwwcibhUv]`jmmUbx`fYgdcbg]v]`jmmUbx`Udd`jYg`h\YgY`nc`WiffYbhxYvUhYg
jb`h\Y`5ighfU`jUb`wcbhYlhz`Ug`kY``Ug`jbhYfbUhjcbU``m''H\Y`wcifgY`kj``U`gc`WfjhjwU``mUggYgg`h\Y`fYUWx`cz
UwwcibhUvj`jmmaYwxUbjgag`jb`h\Y``][\hczfYwYbhwxUb[Yg`nc`[cjYfbaYbhgYfj]wY`XY`]jYfmz`jbwiXjb[
cihgcifwjb[zwcbhYghUv]`jmmUbx`diV`]wdfjjUhY`dUffbYfg\]dgzUbx`wcbg]xYf`fYgdcbg]v]`]mmUbx`]bhY[f]mi]b`h\Y
WcbhYlhczai`hj!`YjY`[cjYfbUbwY"

7 ci fqY @YUfb]b[Ci hMca Yq

- %" 9 I d`U]b`h\Y`WcfY`WcbWfdhg`cZfYgdcbg]V]`]\miUbX`UW\\cibhUV]`]\miUbX`h\Y]f`fc`Y`k]\h\]b`XYa c\\fu\h\\W dc`]\\mid U_]\b[\"
- &" ±j Ygh][UhY h\Y fc`Y UbX dfcW/ggYg`cZh\Y _YmUWVci bhUV]`]hma YVXUb]ga g`Uhk cf_`]b`h\Y`5i ghfU`]Ub dc`]h\WJ`gnghYa "
- ' " 5dd`mih\Ycf]Yg`cZfYgdcbg]V]`]lmiUbX`UWWci bHUV]`]lmihc`fYU`!k cf`X`WUgYg`]b`WcbhYa dcfUfmi5i glfU`]Ub dc`]Wh!a U_]b["
- ("9j U'i UHY'h\Y'YZZYWNj YbYgg'cZ'UWWci bHUV]]lmia YW\Ub]ga g'k]h\'fYgdYWhitc'h\Y'a Uf_YhjgUhjcb'cZ [cj Yfba YbhgYfj]WY'XY`]j Yfm'UbX'h\Y'g\]Zhtc'[cj YfbUbW'"
-) " 7 f]h]WU``mYb[U[Y k]h\ W ffYbhXYVUhYg UVci h

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jYbYggʻcZ'UWWcicaa]H



k cfXg"'Mci 'k]```fYWY]j Y'k f]hhYb'ZYYXVUW_'k]h\]b'&'k YY_g'cZgi Va]gg]cb"

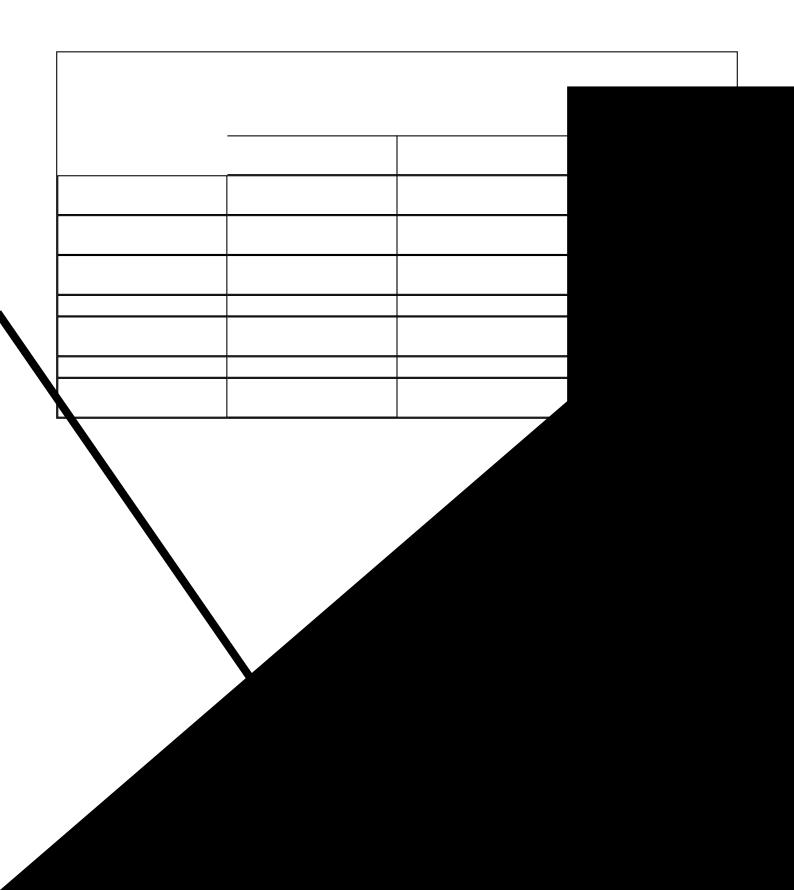
.

5 X X] h] c b U` ` X Y h U] ` g.

5XX]hcbu``]bZcfa Uhcb'k]``VY'dfcj]XYX'cb'A ccX'Y"

Gi Va]gg]cb bchYg. Gi Va]hj]U Hi fb]hb

 $\label{thm:conditional} \mbox{Hi fb]h]b$"gYh]b$[.$$'H\]g$"ugg][$ba$ Ybh]g$"gi$ Va]$'h'X"h\fci [\'Hi fb]h]b$"UbX"ghXYX"cb"A ccX"Y"$$$



Gi Va]gg]cb cZ5ggYgga YbhHUg_g Hi fb]h]b Gi Va]gg]cb

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

D`U[]Uf]ga i]gii g]b[ih\Yik cfXgicfi]XYUgicZch\YfgiUbXidfYgYbh]b[ih\Ya iUgimci fick b"i=hWbihU_Yia Ubm Zcfa qžZfca iXYi]VYfUhYiWXYUh]b[ihciUWW]XYbhU`mWcdm]b[iZfca iUigci fWYik]h\ci hUW_bck iYX[Ya Ybh'

IBGK '[fci dg'd'U[]Uf]ga ']bhc'h\Y'Zc``ck]b['WUhY[cf]Yg.

7 cdm]b[.'i g]b['h\Y'gUa Y'cf'j Yfmg]a]`Uf'k cfXg'hc'h\Y'cf][]bU`hYl hcf']XYU'k]h\ci h'UW_bck `YX[]b['h\Y gci fW'cf'i g]b['ei chUh]cb'a Uf_g"'H\]g'U'gc'Udd`]Yg'hc']a U[Ygž'Ufh'UbX'XYg][b'dfc YWhgž'Ug'k Y``'Ug dfYgYbhUh]cbg'k \YfY'gca YcbY'dfYgYbhg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci h'WfYX]h'

± Uddfcdf]UhY 'dUfUd\fUg]b[.'7\Ub[]b['U'ZYk'k cfXg'UbX'd\fUgYg'k\]'Y 'a cghmfYhU]b]b['h\Y'cf][]bU' ghfi WhifY'UbX#cf'dfc[fYgg]cb'cZ]XYUg'cZh\Y'cf][]bU'žUbX']bZcfa UhJcb'k]h\ci hUW_bck 'YX[Ya Ybh''H\]g'U'gc Udd']Yg']b'dfYgYbhUhJcbg'k\YfY'gca YcbY'dUfUd\fUgYg'Ubch\Yf'g']XYUg'cf'k cfXg'k]h\ci h'WfYX]hUbX'hc d]YW]b['hc[Yh\Yf'ei chYg'UbX'dUfUd\fUgYg']bhc'U'bYk'k\c'Yž'k]h\ci h'Uddfcdf]UhY'fYZYfYbW]b['"

7 c``i g]cb.'k cf_jb['k]h\ch\Yfg'Vi hdUgg]b['cZZh\Y'k cf_'Ug'U'dYfgcb'g']bX]j]Xi U``k cf_"'7 c``i g]cb'U`gc]bWi XYg'dfcj]X]b['mci f'k cf_'hc'Ubch\Yf'gh XYbhVYZcfY'h\Y'Xi Y'XUhYžcf'Zcf'h\Y'di fdcgY'cZh\Ya d`U[]Uf]g]b['UhUbmhja Yž'dUm]b['Ubch\Yf'dYfgcb'hc'dYfZcfa 'Ub'UWUXYa]WhUg_žghYU`]b['cf'UWei]f]b[Ubch\Yf'dYfgcb'g'UWUXYa]Wk cf_'UbX'Wcdm]b[']hz'cZZYf]b['hc'Wca d'YhY'Ubch\Yf'dYfgcb'g'k cf_'cf'gYY_]b[dUma YbhZcf'Wca d'Yh]b['UWUXYa]Wk cf_"

±DUddfcdf]UhY`W]hUh]cb. '7]h]b['gci fWYg'k \]WX`\Uj Y`bchVYYb`fYUXžk]h\ci hUW_bck `YX[]b['h\Y`″gYWcbXUfm″ gci fWY`Zfca 'k \]WX`_bck `YX[Y`cZh\Ya`\Ug'VYYb`cVhJ]bYX"

- i bXYfgfUbX mci f'f][\hg'UbX'fYgdcbg]V]`]hJYg'Ug'U'gh XYbhUhl BGK
- VY`Uk UfY`cZd`U[]Uf]ga ž`Wcdmf][\hz'l BGK `Gh XYbh7cXY`cZ7cbXi WhUbX`5VWWdhUV`Y`l gY`cZ I BGK `=\forall H`F Ygci f\W\g`Dc`]\m\m
- VY 'Uk UfY 'cZh\Y 'ghUbXUfXg 'cZVY\Uj]ci f'Yl dYWYX 'cZYj YfmcbY ']b 'h\Y 'l BGK 'Wca a i b]hm
- `cWUHY 'gYfj]WYg'UbX ']bZcfa UH]cb'UVci hI BGK 'UbX'I BGK '@]VfUfm

Gca Y'cZh\YgY'UfYUg'k]``VY'ZJa]`]Uf'hc'mci ž'ch\Yfg'k]``VY'bYk"'; U]b]b['U'gc`]X'i bXYfgHJbX]b['cZU``h\YfY`UhYX'UgdYWng'cZ9@+69'k]``\Y`d'mci 'a U_Y'h\Y'a cghicZmci f'ghi X]Yg'UhI BGK "'\\hd.##qi VYWfi |XYg"`]VfUfm'i bqk "YXi "Ui #\`]qY#JVci hY`]qY

5 WUXYa]W + DZcfa Uhjcb

: cf'YggYbhJU`gh XYbh]bZcfa UhJcb fY`UhJb[hc.

- fYei Yghg Zcf Yl hYbg]cb/
- `UhY`gi Va]gg]cbg`[i]XY`]bYg/
- fYj]Yk 'cZa Uf_g/
- I BGK '< YU'h\ 'UbX'GUZYhm'dc']W]Yg/
- YI Ua]bUh]cb dfcW/Xi fYg/
- gdYWJU``Wcbg]XYfUHJcb']b'H\Y'Yj YbhcZ]``bYgg'cf'a]gUX' cf'a]gUX'

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