



# **SOCF5108**

H\YfUdYi hJW7cbhYl hg UbX F Y`UhJcbg\]dg

HYfa "C bY" ## "&\$&\$

# 7ci fgY<sup>.</sup>Cj Yfj ]Yk

# 7ci fgY 8YHJ] g

7 fYX]hDc]bhg\*\*

### Gi a a UfmcZh\Y 7ci fgY

### 7 ci fgY @YUfb]b[ Ci hWca Yg

# 5ggYgga Ybh

## 5ggYgga Ybh'HUg\_g'

5ggYgga Ybh'HJg_	K Y][ \h	8iY'8UHY	Gh XYbh@YUfb]b[ Ci hWca Yg 5ggYggYX
FYZYWjcb YggUm	(\$1	&' # #&\$&\$	% <u>*</u> (
F YgYUfVX 'YggUm'	*\$1	&, #( #&\$&\$	&Ž

5ggYgga Ybh8YHJ]`g

5ggYgga Ybh'% FYZYWh]cb YggUm

GhUfhXUhY. Bch5dd`]WUV`Y

@Yb[ h\. '%) \$\$

8 YHU]`g. `Ghi XYbhg`k]```gi Va]hU`Wf]h]WU``fYZYWf]cb`d]YWY`fa UI "`%) \$\$`k cfXgŁ`cb`U`cb`U`hcd]WfY`Yj Ubhihc`h\Y Wti fgY`a UhYf]U`"``Ghi XYbhg`k]```fYWY]j Y`k f]hhYb`ZYYXVUW\_`UbX`U`bi a Yf]WU``[fUXY`k]h\]b`hYb`k cf\_]b[ `XUmg`cZgi Va]gg]cb"`H\Y`ZYYXVUW\_`g\YYh#fi Vf]Wk]```VY`Uj U]`UV`Y`hc`ghi XYbhg`Uhih\Y`ghUfhcZh\Y`Wti fgY`gc`h\Uhih\Ym WUb`k cf\_'hck UfXg`gdYW]ZYX`ghUbXUfXg"``

5XX]h]cbU`XYhJ]`g.

Hi fb]h]b gYhh]b[. `HT\ligillsgg]a lsasYiloghilgringi etan]thYiXsh\ss.iu[b\nihiiiflot]lebdUbt\hghicXiloggdhWUTD gYhYnHitflorjh]bagja dj`Ufshtnu dents fYdcftg"

5ggYgga Ybh'& F YgYUfW YggUm

GhUfhXUhY. Bch5dd`]WUV`Y

GG

## FYgci fWyg

### DfYgWf]VYX F Ygci fWfg

#### 7 ca di hYf \*#hYW\b]\WU`F Yei ]fYa Ybhq

A ccX`Y`]g`h\Y`@YUfb]b[`A UbU[Ya YbhGmghYa`i gYX`Uhi BGK "'5``Wti fgYg`\Uj Y`U`A ccX`Y`g]hY`k\]W\`k]`` VYWta Y`Uj U]`UV`Y`hc`gh XYbhg`Uh``YUghcbY`k YY\_`VYZcfY`h\Y`ghUfhcZgYa YghYf"`D`YUgY`Z]bX`U```\Y`d`UbX XcW a YbhUhcb`f]bWi X]b[`6`UW\_VcUfX`7 c``UVcfUhYŁ'Uhh\Y`A ccX`Y`Gi ddcfhdU[Y"

IBGK 'AccX'Y'giddcfhg'h\Y'Zc``ck]b['kYV'VfckgYfg.

- •; cc[`Y'7\fca Y')\$Ž
- 'GUZJf] '%\$Ž

#### : cfcif6`UW\_VcUfX7c``UVcfUhYhihcf]U`gžmcik]``fYei]fY.

- •'U'\YUXgYhk]h\'U'a]\footsbY'fUbX'U'\WJaYfUz']Zmci'k]g\Ł
- 'U'VfcUXVUbX']bhYfbYhWcbbYWf]cb'f&) \*? V]h#gYWcf'ZJghYfŁ

#### Zmci byyx Z fh\yf'Ugg]ghUbW'k ]h\ AccX`y.

 $: cf`Ybfc`a\ Ybh`UbX``c[\ ]b`]ggi\ Yg`d`YUgY`WcbfUWb`+l`GYfj\ ]W'`7\ YblfY$ 

D\cbY. f\$&Ł'-',) '%''

±bhYfbUh|cbU`. Ž\*%'&'-', ) '%' ''

Gi ddcfh\ci fg.

A cbXUm-: f]XUm, .\$\$Ua -, .\$\$ da

GUh fXUm/ Gi bXUm/ \$\$ Ua - & \$\$da

: cf'U```ch\Yf'A ccX`Y`]ggi Yg'd`YUgY`WcbhUWh'9I hYfbU``H9@H'Gi ddcfh 9a U]`. YI hYfbU`hY`hqi ddcfh4 i bqk "YXi "Ui

D\cbY. 'f\$&Ł'-', ) '''' %

**₺**hYfbUhcbU`Ž\*%&-',)'''%

Gi ddcfh\ci fa.

A cbXUm-: f]XUm, .\$\$Ua '-'%\$.\$\$'da GUh fXUm/ 'Gi bXUm-.\$\$'Ua '-').\$\$da

#### @]VfUfmUbX dfYqWf]VYX fYqci fWYq

 $5 ```h Y `WcfY `UbX `UXX]h]cbU``fYUX]b[g`UfY `Uj U]`UV`Y `Zfca `h Y `Wci fgY `fYUX]b[ ``]b\_`cb`A ccX`Y ``Mci `WUb UWW gg `h Y `fYUX]b[g`UbX ``h Y `Wci fgY `a UhYf]U`g`Vm`c[[]b[ `cb`hc`h Y `A ccX`Y `dU[Y `Zcf'h ]g`Wci fgY `k ]h `mci fg]b[ `Y `g][b'cb`ghi XYbh`c[]b"$ 

 $\label{eq:linear_continuous_con$ 

Mci 'k ]``'U`gc'VY`fYei]fYX`hc'UWWgg'UXX]h]cbU``a UhYf]U``Zfca 'h\Y`I BGK '`@]VfUfm'' H\Y`I BGK '@]VfUfm' k YVg]hY`]g'UWWggYX'Uh`\hd.#k k k "`]VfUfm'i bgk "YXi "Ui "'Mci 'k ]``'U`gc'VYbYZ]hZfca 'VYWca]b[ 'ZJa]`]Uf`k]h\; cc[ `Y`GW\c`Uf

fl\hd.#gVXc`Uf"[cc[`Y"Wca EUg'U`\_YmgYUfVX`Yb[]bY`Zcf'UWUXYa]WdiV`]WUh]cbg'UbX`fYdcffg"`Mci `WUb'gYh

 $\label{eq:continuity} $$ i d'h Y'dfYZYfYbWYg'hc'']b_'hc'h Y'l BGK '@]VfUfm'Yj Yb'k \Yb'mci 'UfY'bchcb'WUa dig'''; c'hc'; cc[`YGWkc`Uf2'gYh]b[g2'`]VfUfm']b_gž'UbX'YbhYf''l b]j Yfg]mcZBYk 'Gci h 'K U'Yg'']b'h\Y'Vcl 'Zcf'''@]VfUfm''.$ 

### FYWca a YbXYX FYgci fW/g

Mci 'WUb'g][b'i d'Zcf'HUV'Y'cZ7cbhYbhg'fHC7Ł5'Yfhg'Zfca 'h\Y'\ca YdU[Yg'cZfY'Yj Ubh'ci fbU'gž'hc'fYWY]j Y Ub'Ya U]''k \YbYj Yf'bYk 'Ufh]WYg'UfY'di V']g\YX']b'h\Uh'ci fbU'"'>ci fbU'">ci fbU'">ci fbU'">ci fbU'">ci fbU'">ci fbU'"'>cZhYb'WUffm ]bZcfa Uh]cb'cb'h\Y'a cghij ]Yk YX'UbX'a cghWjhYX'Ufh]WYg/h\YgY'UfY'`]\_Y`mhc'VY']bhYfYgh]b['UbX'cZhYb]bZi Ybh]U`'Wcbhf]Vi h]cbg''; cc['Y'GW.c'Uf'k]`''U'gc'dc]bh'mci 'hc'Ufh]WYg'h\Uh'\Uj Y'WjhYX'U'dUfh]W' 'Uf'Ufh]WY UbX'\YbW''k]`''VY'fY'UhYX'hc'h\Y'hcd]W'

@|b\_g'hc'UXX|h|cbU`fYgcifWYgži|XYcg'UbX'hYI hg'k]``VY'X]gWiggYX']b'WVgg"

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

Gh XYbhYj U`i Uhj Y`ZYYXVUW\_`]g`[ Uh\YfYX`dYf]cX]WU`mi g]b[ ž'Ua cb[ `ch\Yf`a YUbgž I BGK fig`a m9I dYf]YbWY`dfcW'gg" +bZcfa U``ZYYXVUW\_`UbX`WUgg![ YbYfUhYX`ZYYXVUW\_`UfY`U`gc`]a dcfhUbh' Gh XYbhZYXVUW\_`]g`hU\_Yb`gYf]ci g`mž'UbX`Wcbh]bi U``]a dfcj Ya Ybhg`UfY`a UXY`hc`h\Y`Wci fgY`VUgYX`]b`dUfh cb`gi W\`ZYYXVUW\_"G][ b]Z]WUbhW\Ub[ Yg`hc`h\Y`Wci fgY`k ]```VY`Wca a i b]WUhYX`hc`gi VgYei YbhWc\cfhg`cZ gh XYbhg`hU\_]b[ `h\Y`Wci fgY" +b`fYgdcbgY`hc`gh XYbhZYXVUW\_`Zfca `h\Y``Ughh]a Y`h\]g`Wci fgY`k Ug`hUi [\hz k Y`\Uj Y`a cX]Z]YX`gYa ]bUf`WcbhYbhUbX`ghfi Whi fY"

Gi Va |gg|cb cZ5ggYgga YbhHUg\_g

Gi Va ]gg]cb cZ5ggYgga YbhHUg\_g

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

Image: Ybwci bhYf'U'dfcV'Ya k \Yb'UhYa dhJb[ 'hc'gi Va ]hmci f'Ugg][ ba Ybht\fci [ \ 'Hi fb]hJbž'd'YUgY

HY'Yd\cbY'9| hYfbU''Gi ddcfhcb'-', ) '' ' ' %cf'Ya U] 'h\Ya 'cb'Y! 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'fl \*) 'XUmg'U'mYUfŁ" Image:

UfY'i bUV'Y'hc'gi Va ]hmci f'Ugg][ ba YbhXi Y'hc'U'ZJi 'hk ]h\ 'Hi fb]hJb'mci 'a UmUdd'mZcf'Ub'Y! hYbg]cbž'Vi hmci
a i ghfYhJ]b'mci f'hJW\_Yhbi a VYf'Zfca '9! hYfbU''Gi ddcfhfU'cb[ 'k ]h\ 'Ubmch\Yf'fY'Yj UbhXcW a YbhgŁ'hc
]bWi XY'Ug'Yj ]XYbW' 'hc'gi ddcfhmci f'Y! hYbg]cb'Udd']WUh]cb" Image: Ya U]''9! hYfbU''Gi ddcfhmci 'k ]''

Ui hca UhJWJ''mfYW'] Y'U'hJW\_Yhbi a VYfž'Vi h]Zmci 'hY'Yd\cbY'mci 'k ]'''bYYX'hc'gdYWJZWJ''mUg\_'Zcf'cbY"

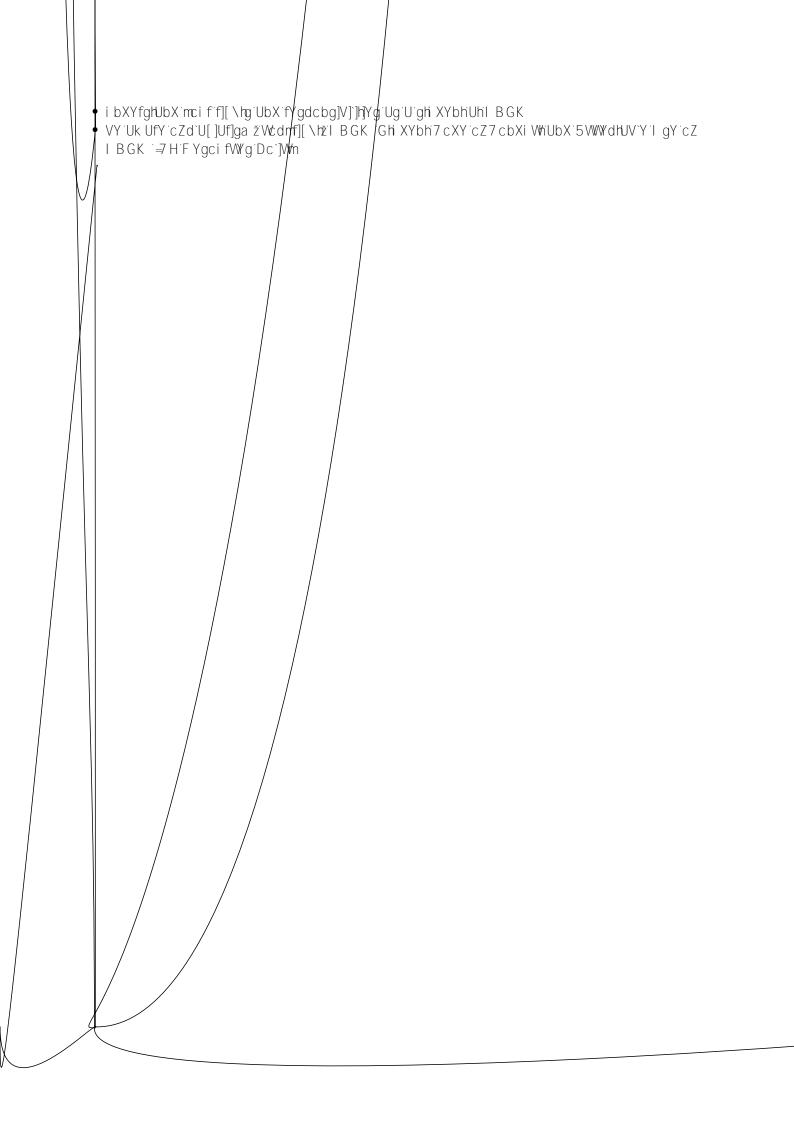
Hi fb]hJb'U'gc'dfcj ]XYg'i dXUhYg'cb'h\Y]f'gmghYa 'ghUh' g'cb'Hk ]hYf"

; YbYfU``mž'UggYgga YbhiHug\_g'a i ghVY'gi Va ]hhYX'Y`YVWfcb]\W)``mj ]U'Y]h\Yf'Hi fb]hjb'cf'U'A ccX`Y Ugg][ ba Ybh'' =b']bgHJb\W'g'k \YfY'h\]g']g'bchdcgg]V`Yž']hk ]``'VY'gHJhYX'cb'mci f'\\circ i fgY'g'A ccX`Y'g]hY'k ]h\ U`hYfbUhj Y'gi Va ]gg]cb'XYHJ]`g''

cfi]bZcfa Uh]cbicbi\ckihcigi Va ]hUgg][ ba Ybhgicbi]bYij ]UiA ccXiY.i\hdg.#gh XYbh'i bgk "YXi "Ui #\ck! qi Va ]hUgq][ ba Ybha ccXiY

# $5\,WUXYa\,W< cbYghmUbXDU[\,Uf]ga$

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



# 5 WUXYa ]W±bZcfa Uhjcb

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