

# **MODL5108**

HfUbg`Uhcb'7Yfh]ZWUhcb'DfYdUfUhcb

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

# 7ci fgY<sup>·</sup>Cj Yfj ]Yk

## GhJZZ 7 cbhJWh 8 YhJ] g

## 7cbj Ybcfg

B Ua Y	9a U]`	5j U]`UV]`]lm	@cWUhjcb	D\cbY
@cb[ '@]	`cb[ "`]4 i bgk "YXi "Ui	H\i fgXUm'!(da ˈfVr	A cfj Yb 6fck b	
	Ŭ.	Uddc]bha Ybh	&&(	

### @YWhi fYfg

B Ua Y	9a U]`	5j U]`UV]`] <b>m</b>	@cWUhjcb	\$

### 7ci fgY 8YW] g

7 fYX]hDc]bhg\*\*

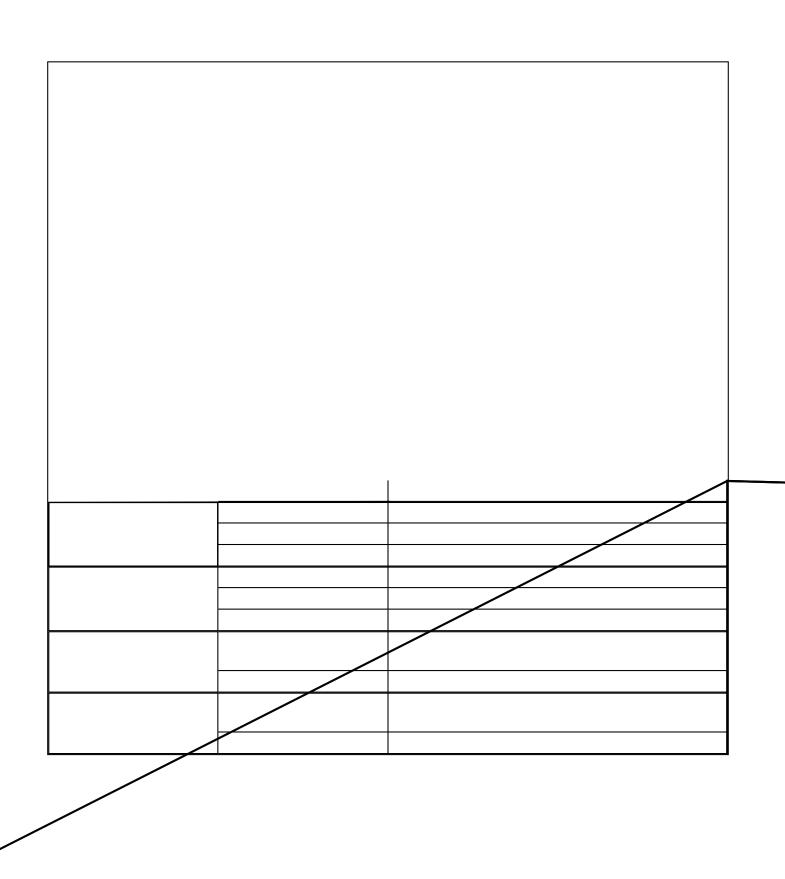
#### Gi a a UfmcZh\Y 7ci fgY

 $H\g"WcifgY'k] \label{eq:hybourded} H\g"wcifgY'k] \label{eq:hybourded}$ 

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

- %" XYa cbglfUhY 'dfcZYgg]cbU`'lfUbg`Uh]cb'Wca dYhYbV]Yg']b''UfYUg'fYei ]fYX'Vm'h\Y'BUh]cbU` 5\W\fYX]hUh]cb'5i h\cf]\miZcf'HfUbg`Uhcfg'UbX'\DhYfdfYhYfg'fB55H\ZDfcZYgg]cbU`'HfUbg`Uhcf YI Ua ]bUh]cb
- &" Wf]hJWU``mUbU`mgY`hfUbg`UhJcbg`cZh\Y]f`ckb'UbX`dYYfg`VUgYX`cb'h\YcfmUbX`fYgYUfW\
- " a U\_Y ]bZcfa YX 'HfUbg`Uh]cb 'Wkc]WYg 'h\Uh'UfY 'Uddfcdf]UhY ]b '[ ]j Yb 'WcbhYl hg
- (" 1 gh]ZmlfUbg`Uh]cb`Wkc]Wkg`]b`dfcZygg]cbU``WcbhYI lg`VUgYX`cb`lh\YcfmUbX`fYgYUfWk

HYUWX]b[ GhfUhY[]Yg



### FYgci fWyg

#### DfYgWf]VYX F Ygci fWfg

D`YUgY`fYUX`h\Y`a UhYf]U``cb`h\Y`7Yfh]Z]YX`HfUbg`Uhcf`hYghcb`h\Y`B55H=kYVg]hY`UhbUUh]"Wca "Ui 'j Yfm WUfYZ ``m'`'=hWcbhU]bg`]bZcfa Uh]cb`UVci hih\Y`WYfh]Z]WUh]cb`hYghz`h\Y`fYj ]g]cb`hYghg`UbX`\Ug`dfUWf)WY`a UhYf]U`"

H\Y'BUhcbu``5\WhYX]huhcb'5i h\cf]mmZcf'HfUbg`Uhcfg'UbX'\DhYfdfYhYfg.'k k k "bUUh]"\can "Ui

#### FYWca a YbXYX FYgci fWyg

? ]a ž'A ]fU"'"A YUb]b[!cf]YbhYX'UggYgga YbhcZhfUbg`Uh]cbg. `G: @'UbX']hg'Udd`]WUh]cb'hc'Zcfa Uh]j Y UggYgga Ybh'"'FWef[' Y S` V SeeWee\_ W f [` fcS` e'Sf[a` S` V [` fWcbdWf[' Y efgV[We'f&\$\$-Ł'%&'!), "

A Y`Vmž'5`Ubž'DUi `:: ]Y`Xgž'8 Ufm`F "'< U[ i Yž'; Yc $\mathbb{Z}$ fYmG"'? cVmž'UbX'5fY`@ca a Y`"'~8 Y $\mathbb{Z}$ b]b[ 'h\Y``UbXgWUdY cZlfUbg`Uh]cb"~Fc\$Vg\_ I f[US %&'f&\$%( \ \L'\$' - &! ( \ \L'\$' - \ \.

Acggcdž6f]Ub":DWh[e[`YS`VW[f]`YXadfc5`e'Sface'f&\$% L"'@cbXcb#BM'Fci hYX[Y"

 $\label{eq:def:def:composition} Dma~~\cite{thm:communication} \begin{tikzpicture}{ll} The point of the communication of the communicat$ 

H\Y'5i ghfu`]Ub`\Dghh hY'cZ\DhYfdfYhYfg'UbX'HfUbg`Uhcfg, kkk"Ui g]h'cf[

I BGK '@YUfb]b[ '7 YbffY. \hdg. #bi WYi g"i bgk "YXi "Ui #/b#NUa di g!\]ZY#\\Y!\YUfb]b[!WYbffY

I BGK 'Ga UffH\]b\_]b[.:\\htdg.##ghi XYbh'i bgk "YXi "Ui #ga Uff\\]b\_]b[

#### 7 ci fqY '9 j U`i Uh|cb 'UbX '8 Y j Y`cda Ybh

5WUXYa]W<cbYghmUbXD`U[]Uf]ga

- 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 '= H'F Ygci fWYg'Dc`]Wh
- 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