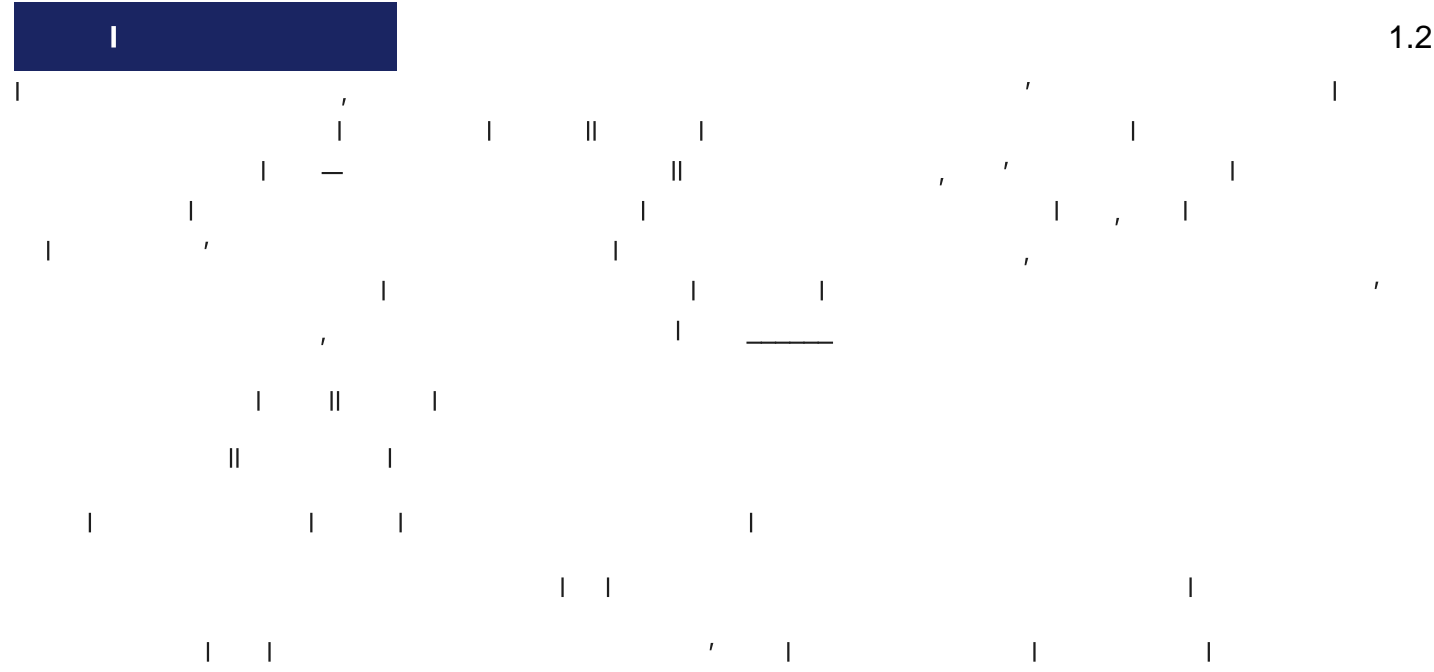




Fj Zhi 'dc°9) +% (Y&[,

6hhZhhb Zci	I Zhi	9db V'c	H' 'aa	9^ Xj an
H6l	GZW'c\ 'VcY'L gf'c\	æ[dgb Vi 'dc'VcY >ZVh	æ[ZgZcXZh	



I

6beeXVg4afj Xe-4

ETgbaT\_X

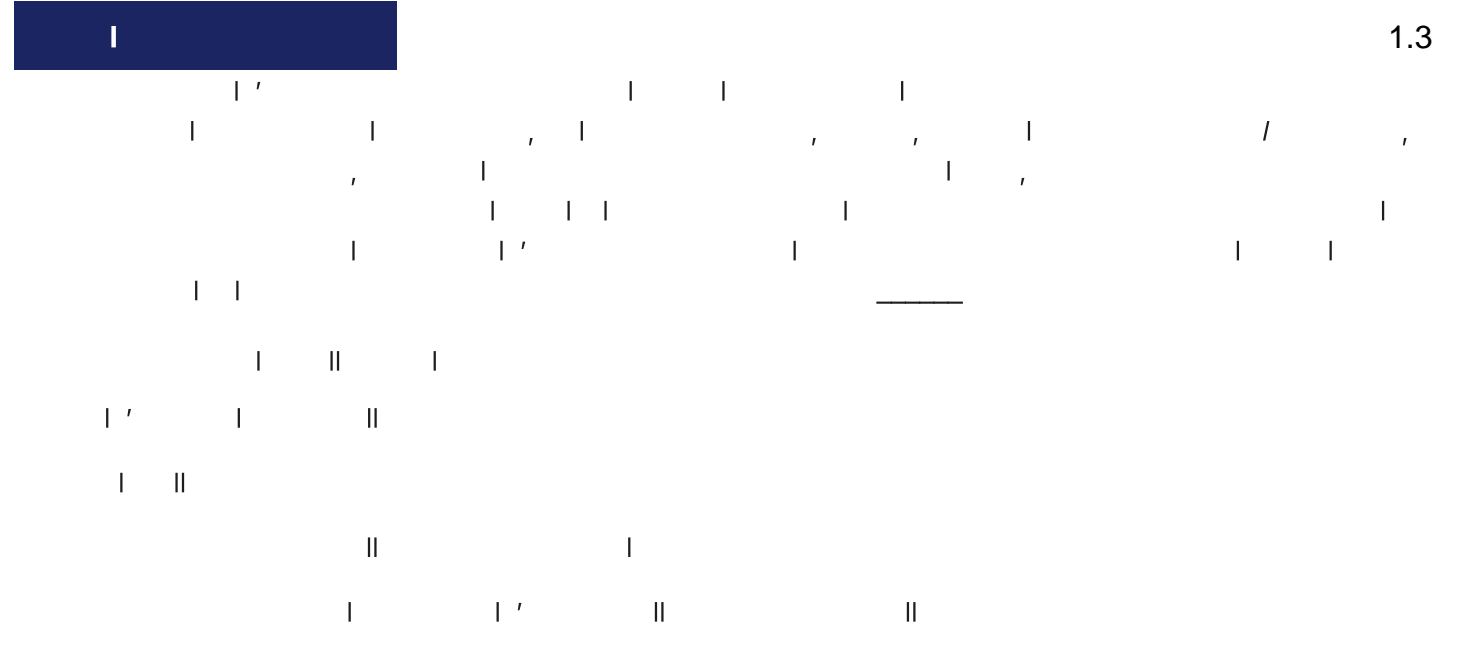
6[ b\X'4'f'g' X'UXfgTafj Xd'a'baX'XkT' c\_XZ' hf\WTaf' TWX'\_Xff' baXI'g' Ta'XkcXVgKWUI' hf'aZ'g' X'14TI' Tf' Ibh'j' V[ 1/2 bWX'\_a'g' X'bg' Xe'XkT' c\_XZT' hf\WTa' TWX' beX' baXI'g' Ta'XkcXVgKW'G[ V'fhZZXfg'g' Tgfb' X' hf\WTaf' TI' [TiX' beX'fhWXff'g' Ta'bg' Xef'hf'aZ'g' X'14TI' Tf' Ibh'j' V[ 1/2 bWX'\_

6[ b\X'5'f'f'aVbeeXVg'G[ V'f'aYXeXaVX'fa'gfhccbegXW'a'g' X'XkT' c\_Xf'cebi W\WZ'g' X'aW' W'hT' hf\WTa'j' Tf' beX'fhWXff'h\_j' \g'g' X'14TI' Tf' Ibh'j' V[ 1/2 bWX'\_g' Ta'g' X'UTaW' Tf'6[ b\X'6'f'f'aVbeeXVg'G[ V'f'aYXeXaVX'fa'gfhccbegXW'G[ X'cTffTZ'cebi W\Wf'ab'afgTaVXf'a'j' [W' hf\WTaf'V[ TaZXW'g' X'fhZZXfg'XWceWXf'bY'g' X'e fbaZf'beT\_Uh' fZabe'WbXf'g' Xagba'g' V' Tf'T'cbffW\g'!6[ b\X'7'f'f'aVbeeXVg'G[ V'f'aYXeXaVX'fa'gfhccbegXW'G[ X'g'kgaXi XeWfVhffXf'g' X'WYXeXaVXf'a'cbch\_Teg' bYWYXeXag' hf\WTaf'Zfb'g' XeX'f'ab'UTf'f'g' T^X'g' V'f'aYXeXaVX'!

DhXfgba'7\WVh\_g' -8TfI

Fj Zhi 'dc°9° %%%/\* [

6hhZhhb Zci	I Zhi	9db V'c	H' 'aa	9^ Xj an
H6l	GZW'c\ 'VcY'L g†'c\	æ[dgb Vi 'dc'VcY >ZVh	æ[ZgZcXZh	

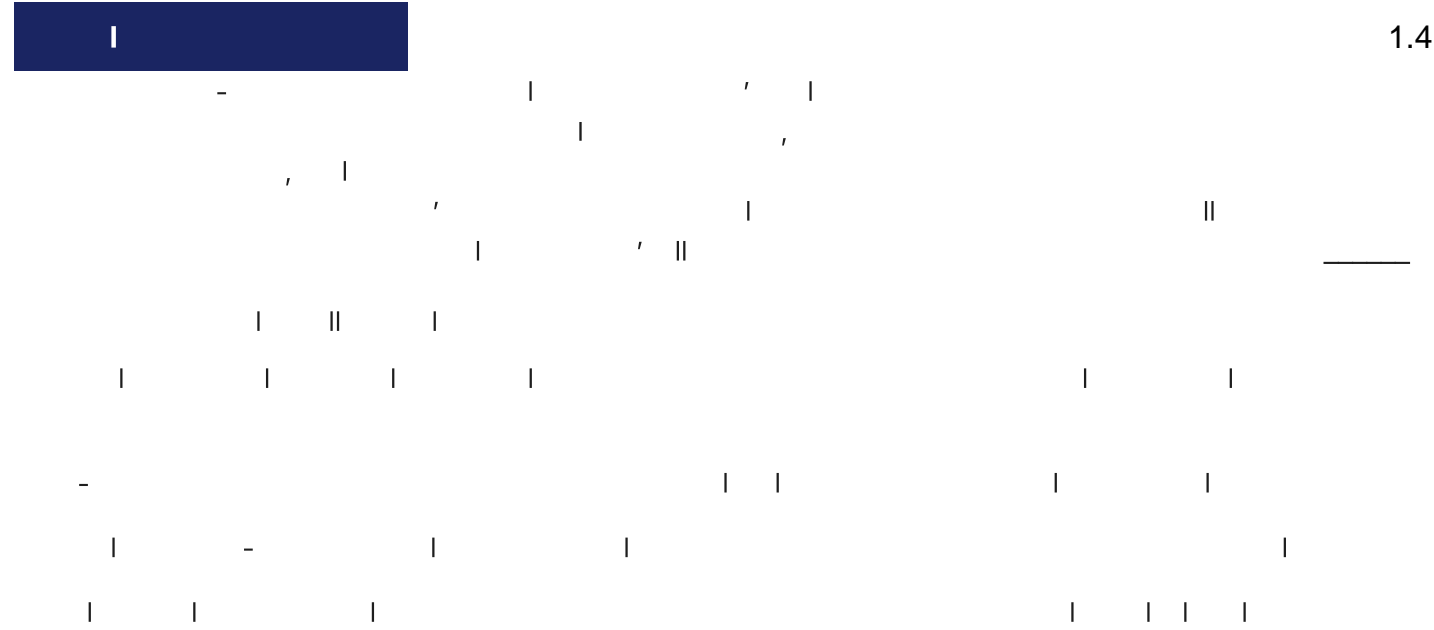


I

6beeXVg4afj Xe'6  
ETgbaT\_X  
6[ b\X'6'f'g' X'UXfgTafj Xe'G[ X'gkkgk\_f'hf'g' TgUXVThfX'bYg' X'Vbcl eZ[ g'TWTcgaZ'F[ Xe\_bV^'; b\_ Xf'f'gbeXf hfXWgb UX'XkcXaf\i XTaW\W\h\_g'G[ V'fhZZXfg'g' TgTYg'e'g' X'Vbcl eZ[ gXaW'Z'gj \_UX\_Xff'XkcXaf\i XTaW\_Xff'W\h\_ggb TWTcgg' XfX'f'gbeXf!  
6[ b\X'4'f'f'aVbeeXVg'G[ V'f'aXeXaVX'fa'gfhccbegXW'G[ X'gkgaXi Xe'fhZZXfg'g' Tgg' X'Vbcl eZ[ gXaW'aZ'j \_ ^ T^XF[ Xe\_bV^'; b\_ Xf'f'gbeXf[ TeW'ke'g' E'aW'afgXTW'Z'gfhZZXfg'g' TgTWTcgg'gbaf'bYg' XfX'f'gbeXf'j \_UX XTfXeTaW\_Xff'XkcXaf\i X'gb^ T^X!'6[ b\X'5'f'f'aVbeeXVg'G[ V'f'aXeXaVX'fa'gfhccbegXW'G[ X'gkgaXi Xe WfVhffXf'cXbc\_Xf'f'agXefg'a W'gXVgi X'f'gbeXfZfb'g' XeX'f'ab'UTF'f'gb^ T^X'g' V'f'aXeXaVX!'6[ b\X'7'f'f'aVbeeXVg'G[ V'f'aXeXaVX'fa'gfhccbegXW'G[ X'gkgaXi Xe'fhZZXfg'g' TgVbcl eZ[ g'XXf'Yeb`'g' X'cTfgTeX eXgheaXWTYgXeT'Vbcl eZ[ gXaW'Zfb'g' XeX'f'ab'UTF'f'gb^ T^X'g' V'f'aXeXaVX!  
DhXfgba'7\h\_g -8TfI

Fj Zhi 'dc°9°+VX%Z\* . \*

6hhZhnb Zci	I Zhi	9db V'c	H' 'aa	9^ Xj an
H6I	GZW'c\ 'VcY'L g'f'c\	æ[dgb Vi'dc'VcY >ZVh	æ[ZgZcXZh	



6beeXVg4afj Xe-5

ETgbaT\_X

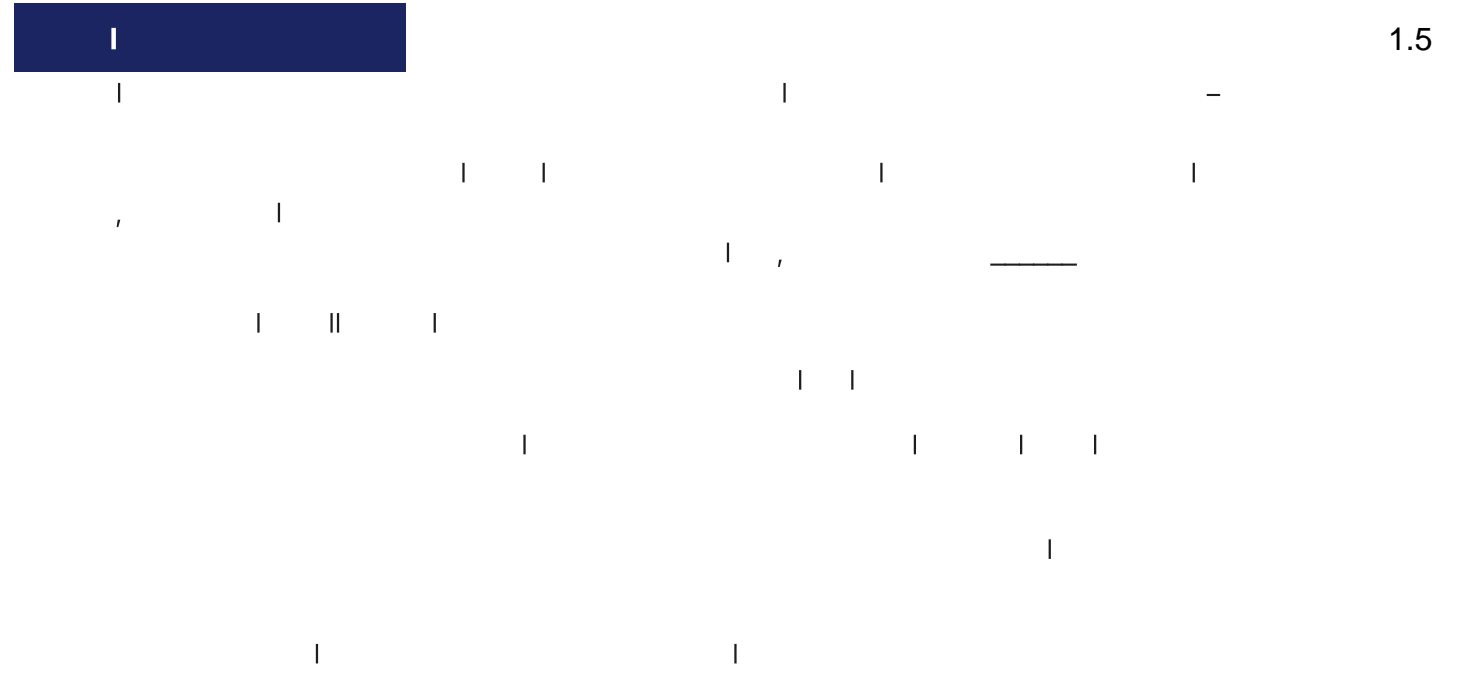
6[ b\WX'5'f'g' X'UXfgTafj Xed'G[ X'g'kgg'f'hf'g' Tg'14Xbc\_X'j [ b'Zbgd'gphV[ 'g' X'g' f'j XeX'j \\_aZ'g'cTI ~ hV[  
` beX` baXI 'Ybe'g' X' 'g' Ta'cXbc\_X'j [ b'j XeXa'gT\_bj XWg'g'phV[ 'g' X' !'G[ 'f'hZZXf'g'g' TgUX'aZ TU\_X'g'  
'agXeTVgj 'g' T'cebW'hVg'a'cXefba` TI ~ T^X'g'fXX' ~ beXi T\_hTU\_X'g'T'f[ bccXe

6[ b\WX'4'f'aVbeeXVg'G[ X'g'kgWbXfa'gWfVhff [ bj ~ hV[ 'cXbc\_X'fcXaWXTV[ ~ ba'g' Zfb'g' XeX'f'abg` hV[ 'UTfVf  
Ybe'g' 'f'V\_J\` !'9heg' Xe` beXZ'f'aVX'UX'aZ TU\_X'g'g'phV[ T'cebW'hVg'g'aW'f'g' T^X'cXbc\_X'14 \\_aZ'g'cTI ~ hV[  
` beX` baXI 'Ybe'g' X' ~ Z[ gceXW'Vg'g' TgTa'ba\_aXf[ bccXe'j bh\_WUX'j \\_aZ'g'fcXaW\_Xff'ba'g' X'fT` X  
cheV[ TfXf Tf Ta'aZcXefba'f[ bccXe'6[ b\WX'6'f'aVbeeXVg'G[ X'g'kgWbXfa'gWfVhff j [ TgeXg'f'Xef'14 bh\_W  
V[ TeZXZ'f'g' XeX'f'abg` hV[ 'UTfVf Ybe'g' 'f'V\_J\` !'9heg' Xe` beXZ'g' X'fghW 'a'g' X'g'kgf'hZZXf'g'g' Tg'aZcXefba  
f'g'p'Xf` TI 'TVghT\_ 'UX'TU\_X'g'V[ TeZX` beX'YbeT'Zi Xa'cebW'hVg'Z'f'aVX'f[ bccXef VTa'g'phV[ 'g'6[ b\WX'7'f'  
'aVbeeXVg'G[ X'g'kgWbXfa'gWfVhff 'cebW'hVg'g'g' TgTeX'ba\_ Ti T\TU\_X'ba\_aXZ'f'g' XeX'f'abg` hV[ 'UTfVf Ybe'g' 'f'  
V\_J\` !'9heg' Xe` beXZ'cebW'hVg'f'ba\_ Ti T\TU\_X'ba\_aX'j bh\_W'f'g\_[ Ti X'g' X'cebU\_X' 'bYf[ bccXef 'abgUX'aZ TU\_X'g'  
g'phV[ 'g' X' ZTaW'g' X'fghW 'f'hZZXf'g'g' Tg'g'f'f'\_bj Xef'g' X'ceW'Xf'f[ bccXef TeX'j \\_aZ'g'cTI !

DhXfgba '7\VEVh\_g -8TfI

Fj Zhi 'dc°9X) Y) (. . &

6hhZhhb Zci	I Zhi	9db V'c	H' 'aa	9^ Xj an
H6I	GZW'c\ 'VcY'L g'f'c\	æ[dgb Vi 'dc'VcY >ZVh	æ[ZgZcXZh	



I

6beeXVg4afj Xe-5

ETgbaT\_X

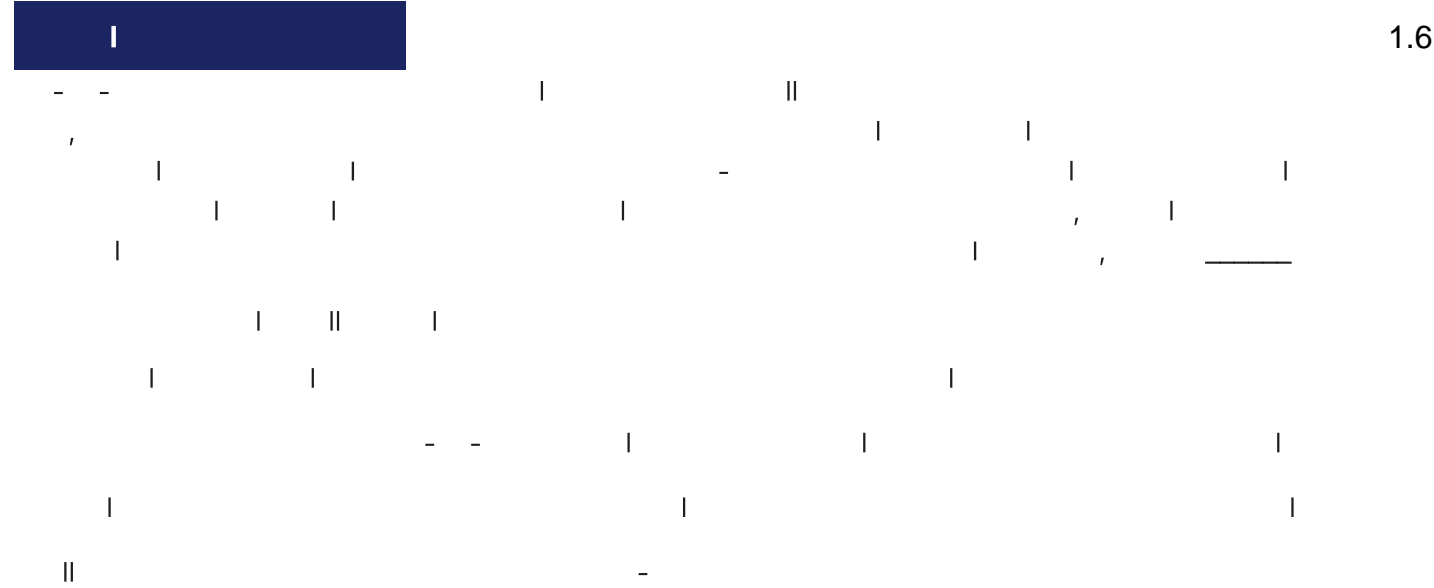
6[ b\WX'5'f'g' X'UXfgTafj Xed'G[ X'cTffTZX'gK\_f hf'g' TgF[ TaZ'W aTfg' 'UebanX'TegYTVgf' VbagT'aXWT'eTeX'Ybe' 'bY\_XTWZ'Uhgd' TgUebanX'TegYTVgf' TYgXe'g' f'g' X'VWwabgVbagT'a'g' Tg\_XTW'4\_g' bhZ[ j X'Wba'g^abj j [ XeX'g' Tg f'cXV'E'V'g' cX'bYUebanX'VT' X'Yeb' Zj X'VTa'VbaV'hVX'g' Tgd' Tgf'bheVX'j Tf'abghfXWTYgXe'g' X'XaWbYg' XF[ TaZ'W aTfg' ¶|bg' Xej f'XZ'cbf'g'F[ TaZ'W aTfg' 'c'VXVf'j bh\_WT\_f'b VbagT'a'g' TgeTeX'Ybe' 'bY\_XTW

6[ b\WX'4'f'f'aVbeeXVg'7Xfc'gK'g' XfX'c'VXVf' VbagT'a'aZ''T'eTeX'Ybe' 'bY\_XTWZ'g' XeX'f'ab'W'eXVgV\_T\ 'a'g' X cTffTZX'g' TgF[ TaZ'W aTfg' 'UebanX'f'f'g'X\_Y' beX'eTeX'bei T\_hTU\_X'g' Ta'UebanX'c'VXVf'Yeb' 'bg' Xe'cXe'bWf' G[ XeX'beXZ'g' XeX'f'ab'UTf'f'Ybe'g' f'f'aYXe'aVX!'6[ b\WX'6'f'f'aVbeeXVg'4\_g' bhZ[ 'g' X'cTffTZX' Xagbaf'g' Tgd' X aTgheX'bYg' X'UebanX'a'6[ 'aXfX'TegYTVgf' V[ TaZXWTYgXe'g' XF[ TaZ'W aTfg' Z'UebanX'j Tf'f'g'\_hfXWgb'VeXTgK TegYTVgf' TYgXe'g' f'g' X!'G[ X'cTffTZX'a'YTVgXkc\_W'g' f'g'f'gXf''UebanX'TegYTVgf'Yeb' '6[ 'aT'WTgXWTYgXe'g' X F[ TaZ'W aTfg' ÅZ'aVWTgaZ'g' TgUebanX'j Tf'f'g'\_hfXW'a'6[ 'aT'TYgXe'g' XF[ TaZ'W aTfg'!'6[ b\WX'7'f'f'aVbeeXVg G[ XeX'f'ab' Xagba'a'g' X'cTffTZX'bY' Xg' bWf' hfXWgb'TaT\_ nX'UebanX'TegYTVgf'Zfb'g' XeX'f'ab'UTf'f'Ybe'g' f'f'aYXe'aVX!

DhXfgba'7\VEVh\_g -8TfI

Fj Zhi ʔdc°9YVWX\* YY

6hhZhhb Zci	I Zhi	9db Vʔc	H ʔaa	9^ Xj ʔn
H6l	GZWʔc\ ʔcYʔL gʔʔc\	ʔc[dgb Vi ʔdc ʔcY ʔZVh	ʔc[ZgʔcXZh	



I

6beeXVg4afj Xe-7

ETgbaT\_X

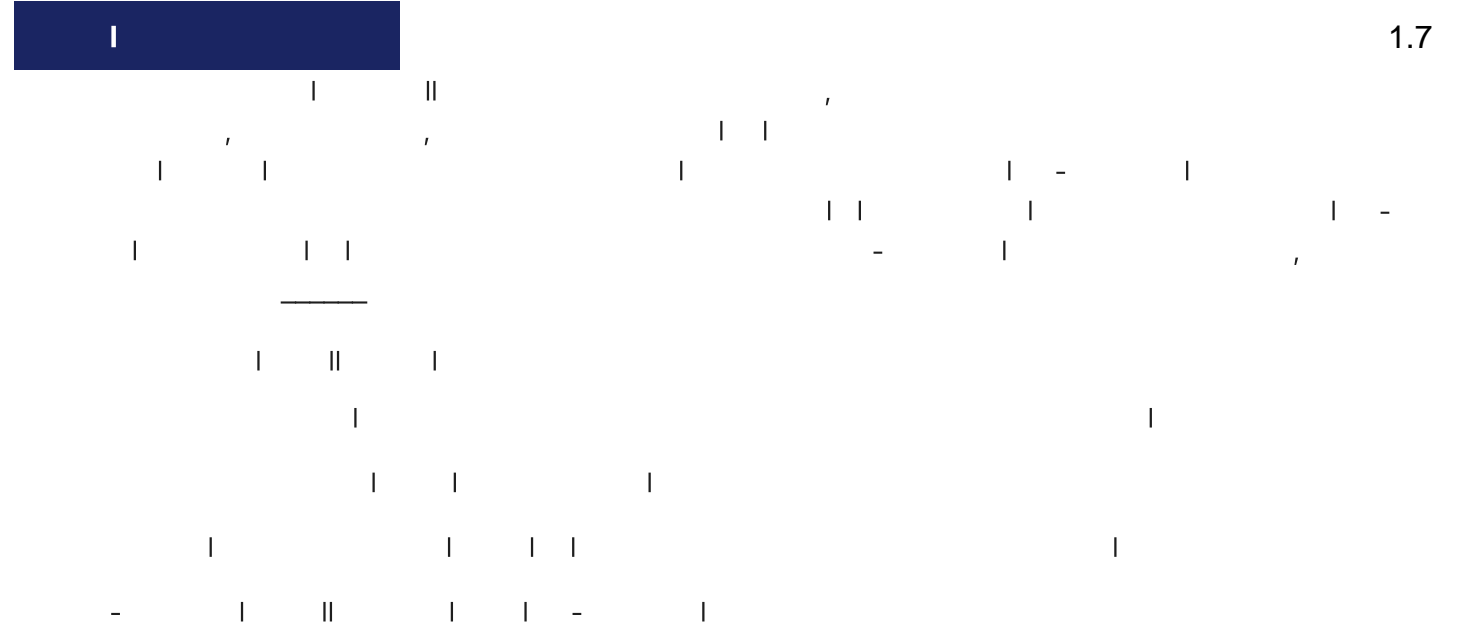
6[ b\WX'7 ʔf ʔd X'UXfgTafj Xd'G[ X'gKgfTI f ʔd TgbYzbYz5ebTWj TI ʔd XTgXef T\_bj XWTegf ʔf ʔb ʔeXTgX` beX  
XkcXe\ Xagʔ\_f[ bj fZTaWg[ Xa ʔWfVhffXf[ bj ʔ9beaöf j Tf ʔeXX'gb WVeXVg[ Xe'bj a ʔfgeTaZXʔc\_TI f ʔ[ bj Xi Xe'f[ X  
j TagXW'G[ ʔf f'hZZXfg ʔd ʔg9beaöf 'XkX' c\_ʔEXf ʔd XTegf ʔdV ʔeXXWb` ʔYbYzbY5ebTWj TI ʔd XTgXef!

6[ b\WX'4 ʔf ʔa VbeeXVg'G[ ʔf ʔa ʔXeXaVX ʔfa ʔgf hccbegXW'G[ X'gKgaXi Xe ʔWfVhffXf ʔd X ʔVbf ʔf ʔYcebWbVgbaZfbj X  
VTa'g\_bZVT\_ ʔ T^X'g ʔf V\_T\ !6[ b\WX'5 ʔf ʔa VbeeXVg'G[ ʔf ʔa ʔXeXaVX ʔfa ʔgf hccbegXW'G[ X'gKgaXi Xe ʔWfVhffXf  
ʔd X ʔVb` c\_Xk'g ʔYfgTZaZ'c\_TI f X'g ʔd Xe'ba ʔ5ebTWj TI be'bYzbY5ebTWj TI Zfb'g XeXf'ab ʔUTf ʔf ʔb` T^X'g ʔf  
ʔa ʔXeXaVX!6[ b\WX'6 ʔf ʔa VbeeXVg'G[ ʔf ʔa ʔXeXaVX ʔfa ʔgf hccbegXW'G[ X'gKgaXi Xe ʔWfVhffXf ʔT` XTgT\_Zfb'g XeXf  
ab ʔUTf ʔf ʔb` T^X'g ʔf ʔa ʔXeXaVX!

DhXfgba 7\ʔEVh\_g -8TfI

Fj Zhi ʔc°9°- V( ZXVX+

6hhZhnb Zci	I Zhi	9db Vʔc	Hʔ ʔaa	9^ Xj ʔn
H6l	GZWʔc\ ʔcYʔL gʔʔc\	ʔc[dgb Vi ʔcʔc ʔcY ʔZVh	ʔc[ZgʔcXZh	



I

6beeXVg4afj Xe-5

ETgbaT\_X

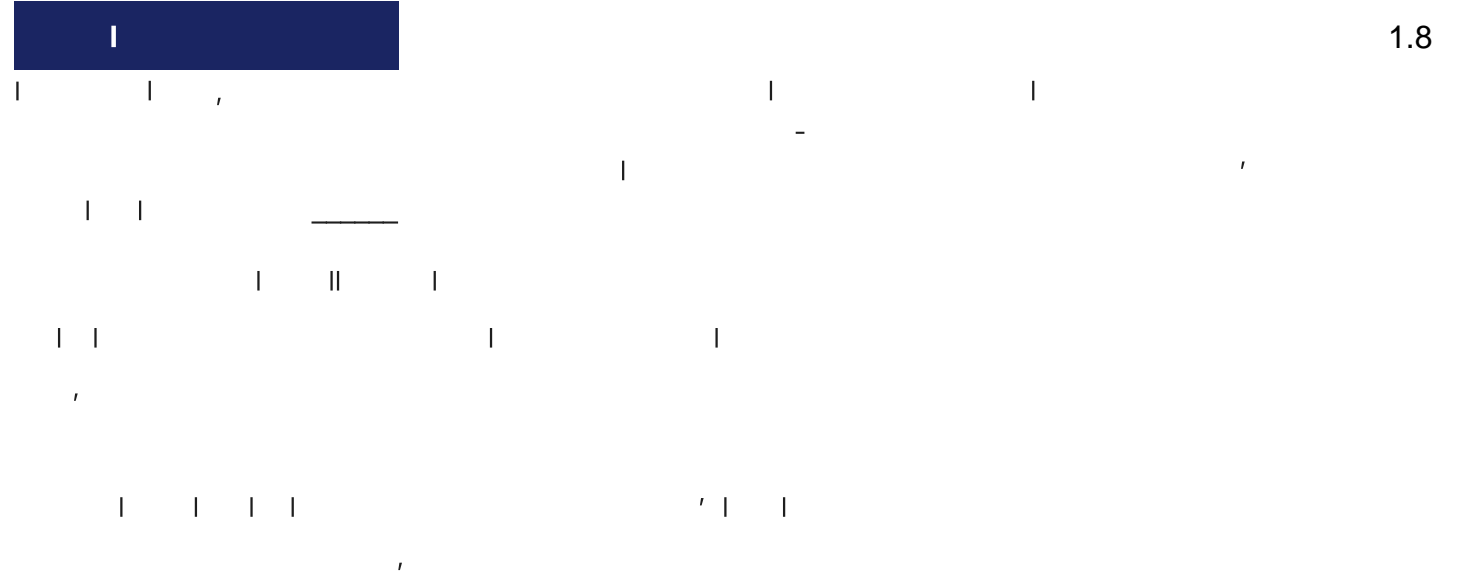
6[ bWX'5'ʔf'g' XUXfgTafj Xe'G[ X'gkkgg'f'hf'g' Tgg' X'U\_TV^žhēeXWj b\_j Xf'TeX'' beX'Vb'' ʔ ba'ʔa TeXTf'j ʔg' eXZh\_Te'bhgJēXT^f' bYVWfg' cXe'i ʔehf'TaWTeX'' beX'\_^X\_j ʔb'UX'' ʔ haX'gb'Wfg' cXe'g' Ta'g' XZeTi žhēeXW j b\_j Xf!'G[ ʔf'f'f'ZZXf'g'g' Tgg' X'ZXaXi TeTagg' TgeXfh'g' ʔa'U\_TV^ʔhe'' TI 'UX'\_a^XWgb'' ʔ ha'g' ʔb'g' X Wfg' cXe'i ʔehf!

6[ bWX'4'ʔf'ʔaVbeeXVg'G[ X'gkkg'aXi Xe'Vb'' cTeX'f'Abe'g' 4' XeV'Ta'ZeTi j b\_j Xf'gb'bg' Xe'j b\_YfcXVXf'ʔ ʔa'YTVg'g' aXi Xe'WfVhf'f'Xf'bg' Xe'j b\_YfcXVXf' TgT\_žf'b'g' XeX'f'ab'UTf'ʔf'Ybe'g' ʔf'ʔaYXe'aVX!'6[ bWX'6'ʔf'ʔaVbeeXVg'G[ X'\_WX fcTa'byZeTi j b\_j Xf'ʔf'ʔaXi Xe'' XagbaXW'a'g' ʔf'g'kg'žf'b'j X'[ Ti X'ab'UTf'ʔf'Ybe'g' ʔf'ʔaYXe'aVX!'6[ bWX'7'ʔf' ʔaVbeeXVg'G[ ʔf'ʔf'gb'Xkg'X' Xi'G[ X'gkkg'f'TI f'g' Tg'U\_TV^žhēeXWj b\_j Xf'TeX'' beX'\_^X\_j ʔb'UX'' ʔ haX'gb Wfg' cXe'g' Ta'g' XZeTi žhēeXWj b\_j Xf'ž'Uhgg' TgT\_baXWbXfa'g' XTa'g' TgU\_TV^žhēeXWj b\_j Xf'j ʔ\_eXc\_TVX ZeTi žhēeXWj b\_j Xf'TVebff'Abe'g' 4' XeVT!

DhXfgba'7'VēVh\_g -8TfI

Fj Zhi ʔc°9° \* - . ([X,

6hhZhnb Zci	I Zhi	9db Vʔc	Hʔ ʔaa	9^ Xj ʔn
H6l	GZWʔc\ ʔcYʔL gʔʔc\	ʔc[dgb Vi ʔc\ ʔcY ʔZVh	ʔc[ZgʔcXZh	



I

6beeXVg4afj Xe-4

ETgbaT\_X

6[ b\X'4' ʔf'g[ X'UXfgTafj Xd'G[ X'gKgfTI f'g[ Tg[ TaW[ T^Xf VeXTg'ghf g'ZTaWg[ Tgg[ X'XaZ'aXXef'ZbT\_ʔf'gb  
1% cebi X[ h` TažebUbg'agXeTVgba f!%G[ ʔf'fhZZXf'g'g[ Tgg[ Xl'j Tagg[ X'ebUbgf' [ TaW[ T^X'gb'YX\_eXT\_UXVThfX  
g[ Xl'j Tag[ h` Taf'gb'ghf g'g[ X'ebUbg

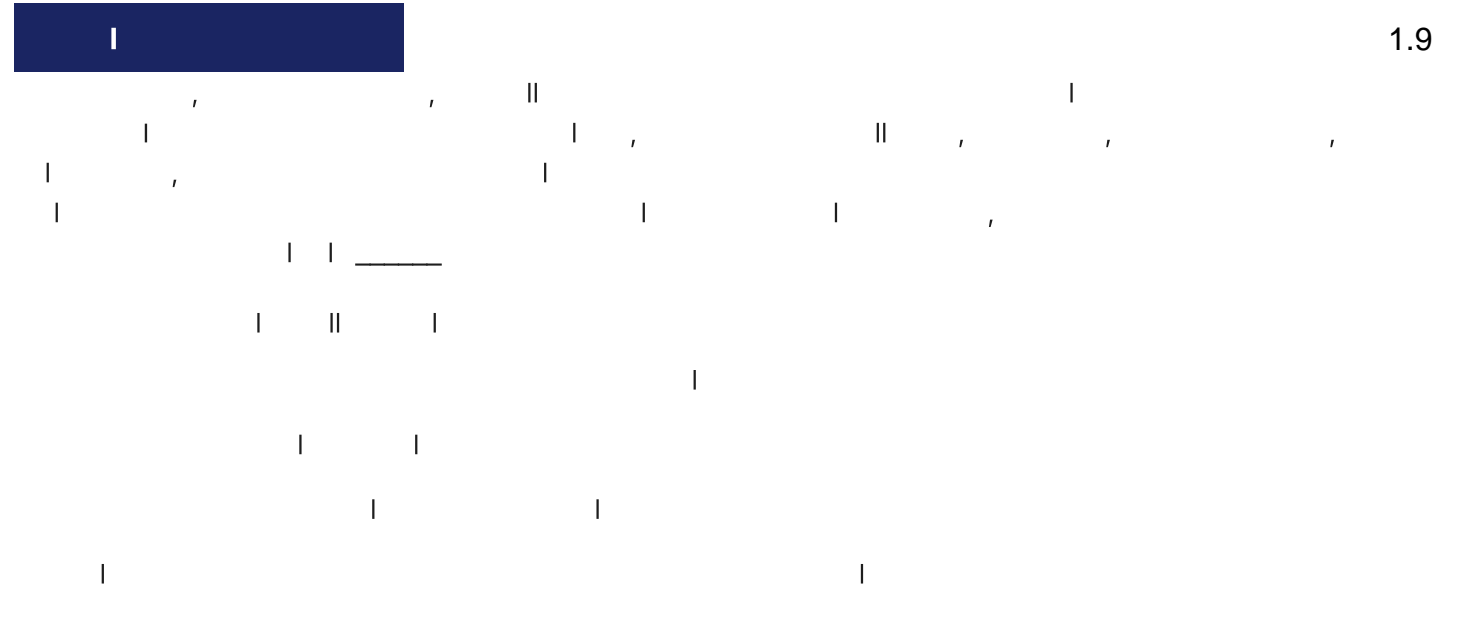
6[ b\X'5' ʔf' ʔaVbeeXVg'G[ ʔf' ʔaYXeXaVX'ʔa'gfhccbegXW'G[ X'gKgaXi Xe'WfVhffXf Tal' bg[ Xe'g cXf'byZeXXgaZfZfb  
g[ XeX'ʔf'ab'UTfʔf'gb` T^X'g[ ʔf' ʔaYXeXaVX!'6[ b\X'6' ʔf' ʔaVbeeXVg'G[ ʔf' ʔaYXeXaVX'ʔa'gfhccbegXW'G[ X'gKgaXi Xe  
WfVhffXf'g[ XTccXTeTaVX'byg[ ʔf'ebUbgbeTal' bg[ Xe'ebUbgf'Zfb'g[ XeX'ʔf'ab'UTfʔf'gb` T^X'g[ ʔf' ʔaYXeXaVX!'6[ b\X  
7' ʔf' ʔaVbeeXVg'G[ ʔf' ʔaYXeXaVX'ʔa'gfhccbegXW'G[ X'gKgaXi Xe'WfVhffXf Tal' hfXf'Ybe'g[ X'ebUbgbg[ Xe'g Ta  
'agXeTVgaZ'j' g[ [ h` Taf'Zfb'g[ XeX'ʔf'ab'UTfʔf'gb` T^X'g[ ʔf' ʔaYXeXaVX!

DhXfgba'7\ŒVh\_g -8TfI



Fj Zhi ʔc°9°, - , , ' . VZ

6hhZhhb Zci	I Zhi	9db V'c	H' ʔaa	9^ Xj ʔn
H6l	GZWʔc\ ʔcYʔL gʔʔc\	ʔc[dgb Vi ʔcʔc ʔcY ʔZVh	ʔc[ZgʔcXZh	



I

6beeXVg4afj Xe-7

ETgbaT\_X

6[ b\X'7 ʔf ʔg X'UXfgTafj Xd'G[ X'gKgfTI f'g ʔgA!ch\W\Tf'ceXI žVTg\ ʔaZ'c'g\ Xef TeX'haWkeZebhaW'gTfb'fTI f'g ʔg ʔg ʔg X'eWZXf j [ XeX'A!ch\W\T' ʔi Xf Wba'g[ Ti X' TaI 'c\_ʔag' ʔaWTa\ Tfb'ba'g XfheTVX!G[ ʔf fhZZXf'g'g ʔg ʔgA! ch\W\T'Xi b\_j XWhaWkeZebhaWc'g\ Xef ʔa'beV'Xe'g'VTg\ ʔ' beX'ceXI !

6[ b\X'4 ʔf ʔaVbeeXVg'G[ ʔf ʔaYXeXaVX'fa'gfhccbegXW'G[ X'gKgaXi Xe' Xag'ba'f'g X'cbff'W\g' bYbg' Xe haWfVbi XeXWTea'ni bebh'f'c\_ʔag'f'cXVXf' ʔa' ʔaWbaXf'TZfb'g' XeXf'ab'UTf'f'g' T^X'g' ʔf ʔaYXeXaVX! 6[ b\X'5 ʔf ʔaVbeeXVg'G[ ʔf ʔaYXeXaVX'fa'gfhccbegXW'G[ X'gKgaVbXf'fTI'g' ʔg ʔg ʔg X'eWZXf j [ XeX'A!ch\W\T' ʔi Xf TeX'Wd'žUhg'g Tfb'fTI f'g ʔg ʔg X'che'cbfXbYVTea'ni bebh'f'c\_ʔag'c'g\ Xef ʔf'g'VTcgeX'ceXI !-gaXi XefhZZXf'g'g ʔg ʔg ʔg XfX c'g\ Xef Tfb'TufbeU' b'f'gheXZfb'g' XeXf'ab'UTf'f'g' T^X'g' ʔf ʔaYXeXaVX! 6[ b\X'6 ʔf ʔaVbeeXVg'G[ ʔf ʔaYXeXaVX'fa'gfhccbegXW'G[ X'gKgaXi XefhZZXf'g'g ʔg ʔgA!ch\W\Tf'haWkeZebhaWc'g\ XeVTa'VTg\ Ta\ Tfb'ba'g XfheTVXZfb'g' XeXf'ab'UTf'f'g' T^X'g' ʔf ʔaYXeXaVX!

DhXfgba'7\ŒVh\_g -8TfI

Fj Zhi 'dc°9'). (X) +VX

6hhZhnb Zci	I Zhi	9db V'c	H' 'aa	9^ Xj an
H6l	GZWY'c\ 'VcY'L g1'c\	xc[dgb Vi 'dc'VcY >YZVh	xc[ZgZcXZh	

1

## 1.10

A complex diagram of a 3D coordinate system. The axes are labeled  $x$ ,  $y$ , and  $z$ . The  $x$ -axis is horizontal, the  $y$ -axis is vertical, and the  $z$ -axis is diagonal. Various points are marked with letters and numbers, and lines connect some of them. A horizontal line segment is labeled  $x$ .

1

6beeXVg4afj Xe'4

ETgNbT\_X

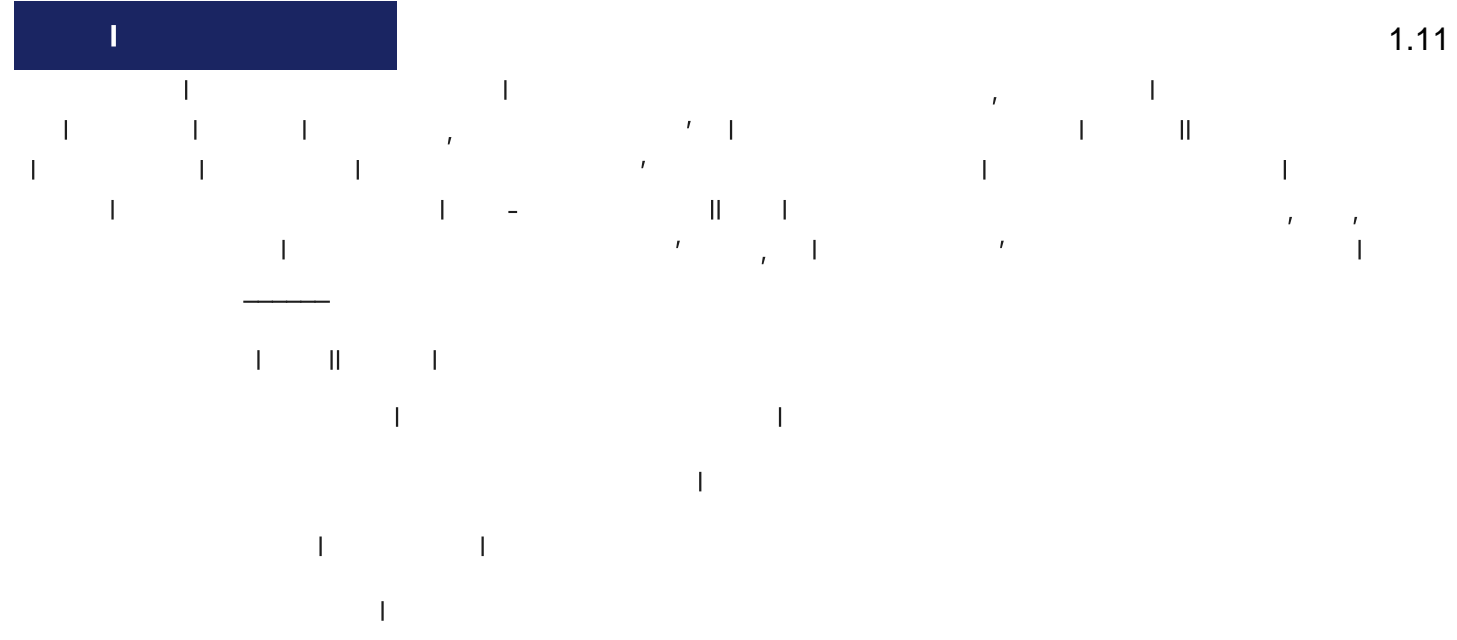
6[ bVX'4'f'g' XUXfgTafj XeUXVThfX'g' bfg\_bZVT\_ Vb' c\_XGf'g' X'gkgf' WfVhffba'bYg' X'g' b'g' cXf'bYfgV^  
gbb\_f'hfXWU' AXj '6T\_XWba'Ta Vebj f!G[ X'gkg'aVWtGf'g' Tg'g' X' beX'XYXVg'i X'g' cX'bYgbb\_[ Tf T[ bb^'g' Tg'g' X  
Vebj f' T^X'g' X' fX\_i XfZj [ \X'g' Xbg' Xe'g' cX'bYgbb\_'f'f' c\_ T'fgV^'j 'g' bhgT[ bb^'g' Tg'g' XVebj f'EaWTaW  
Wba'gf[ TcX'a Tal 'j Tl!4WbeWaZ'g'g' X'gkg'>\_h' c'YbhaWg' Tg'g' X'Vebj f'^XXc[ bb^XWgbb\_f'f' Uhgabg'g' X'gbb\_f  
j 'g' bhg[ bb^'f'f' 'a'g' XeZeTfc be'a fTX'c\_TVXf'j [ Xa'g' Xl TeXa'ghf'aZ'g' X'gbb\_f!<Y'g' X[ bb^XWgbb\_f TeX' beX  
XYXVg'i X'g' Ta'g' X'gbb\_f'j 'g' bhg[ bb^'f TeX'TaWg' X'Vebj f TeX' beX'cebXVg'i X'bYg' X[ bb^XWgbb\_f'g' Ta'g' Xl TeX  
bYg' X'gbb\_f'j 'g' bhg[ bb^'fZ'g' eXTfbaTU\_X'g' VbaV\_hVW'g' Tg'g' X[ bb^XWgbb\_f TeX' beX'i T\_hTU\_X'g'g' X'Vebj f  
g' Ta'g' X'gbb\_f'j 'g' bhg[ bb^'f TeX!

[illegible]



Fj Zhi ʔc 9°, V- . \*YZ[

6hhZhhb Zci	I Zhi	9db Vʔc	Hʔ ʔaa	9^ Xj ʔn
H6l	GZWʔc\ ʔcYʔL gʔʔc\	ʔc[dgʔ Vi ʔcʔc ʔcY ʔZVh	ʔc[ZgʔcXZh	



I

6beeXVg4afj Xe-5

ETgbaT\_X

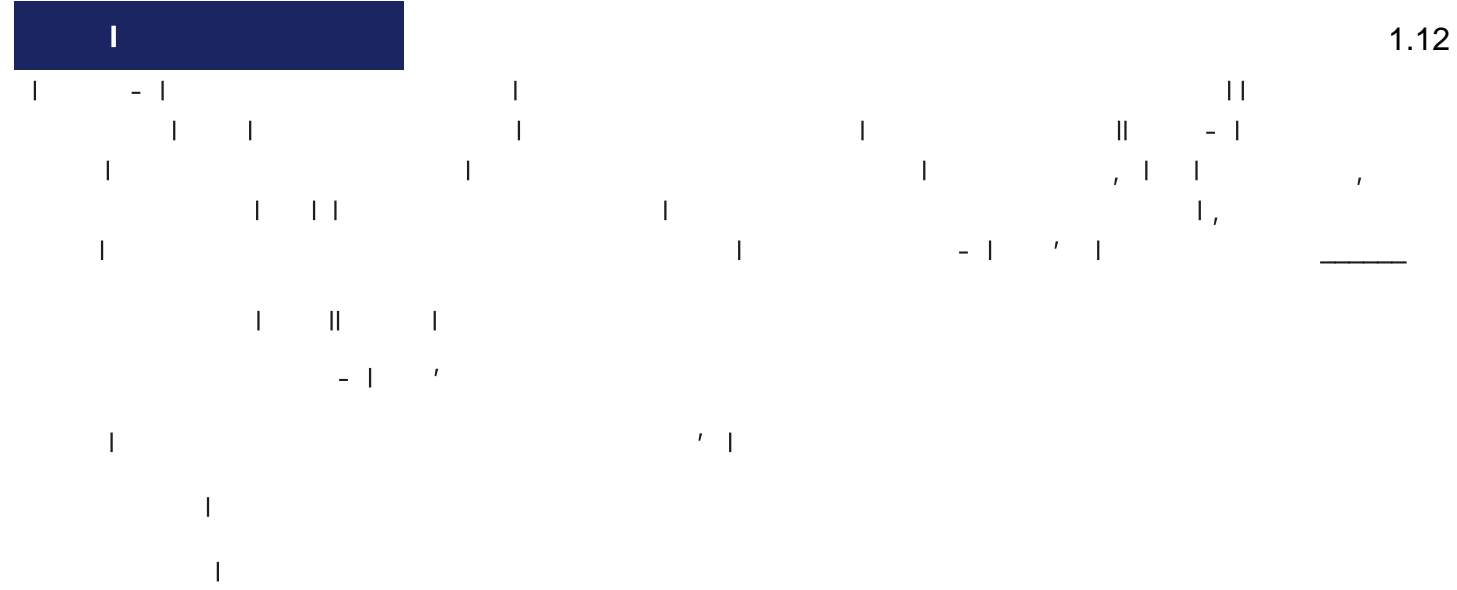
6[ b\WX'5'ʔf'g' X'UXfgTafj Xe'd'G[ X'cTffTZX'g'f'hf'g' TgTggXaWXXf'Tg=b[ afba'f'ZXg'g'ZXg' Xef''j bh\_WeXTWTaW  
WfVhff'baXTabg' Xef'j be'!'G[ ʔf'fhZZXfg'g'g' Tgg' X'ZTg' Xe'aZf'Vbh\_Wcebi WXTa'bccbegha'g' Ybe'=b[ afba'g'b'ZXg  
YXXWUTV^'ba[ Xe'c\_Tl f!'AbgWX[ bj'g' X'g'XkgYbeXf[ TWbj'f'g' ʔf'VbaV\_hf'ba'Ul'g' X'' Xagba'bY=b[ afba'\_XTea'aZ  
'j[ Tgbg' Xe'cXbc\_X'g' bhZ[ gbY[ Xe'c\_Tl f!'

6[ b\WX'4'ʔf'ʔaVbeeXVg'G[ X'cTffTZX'WbXfa'g' Xagba'g' XTgXe'Vb' cTa'Xf TggXaW'aZ'g' X'ZXg'g'ZXg' Xef'Žfb'g' XeX'ʔf  
ab'UTf'ʔf'Ybe'g' ʔf'ʔaXeXaVX!'6[ b\WX'6'ʔf'ʔaVbeeXVg'G[ X'cTffTZX'WbXfa'g' Xagba'\_XTea'aZ TUbhg'c\_Tl f'Yeb' 'bg' Xe  
V'gXf'Žfb'g' XeX'ʔf'ab'UTf'ʔf'Ybe'g' ʔf'ʔaXeXaVX!'6[ b\WX'7'ʔf'ʔaVbeeXVg'G[ X'cTffTZX'WbXfa'g' Xagba'='b[ afba'hf'aZ  
g' X'ZXg'g'ZXg' Xef'Tf'ʔafc'eTgba'Ybe'YhgeX'c\_Tl f'Žfb'g' XeX'ʔf'ab'UTf'ʔf'Ybe'g' ʔf'ʔaXeXaVX!

DhXfgba'7\ŲVh\_g -8TfI

Fj Zhi ʔc°9°.% , VZ' \*

6hhZhhb Zci	I Zhi	9db V/c	H' ʔaa	9^ Xj ʔan
H6l	GZWYʔc\ VcY'L gʔc\	ʔc[dgʔ Vʔc\ VcY ʔZVh	ʔc[ZgZcXZh	



I

6beeXVg4afj Xe-6

ETgbaT\_X

6[ b\X'6'f'g' X'UXfgTafj Xed'G[ X'gkkgX\_f'hf'g' Tg'fVgbe' gKaVWVg[ \Z[ \_ XkTZZXeTgX'g' XeTVgbbaf TaW  
XkceXff\ba'f'2a E\_ f'cebVhVXWVeb` '\$+, ) g' \$ %#! G[ V'fhZZXfg'g' Tgg' X'aTgheT\_f'g' \_X'bYTVgaZ'a: hl z5\_TV[ öf  
E\_ f'j Tf'i Xed' hahfhT\_Ybe'g' X'g' X!

6[ b\X'4'f'f'aVbeeXVg'G[ X'gkkgXi XeWfVhffXf Tal' bg' XeWVeXVgbe' Vbcl' VaZ'g' X'f'g' \_X'bYTVgaZ'YbhaW'a: hl z  
5\_TV[ öf E\_ f'ZTaW'a YTVgfhZZXfg'g' X'bccbf'gX'f'g' Tg'g'j Tf'hahfhT\_YbeWVeXVgbe' g'fhZZXfgg' V'f'g' \_X'bY  
TVgaZ'Tgg' X'g' X! 6[ b\X'5'f'f'aVbeeXVg'G[ X'gkkgXi XeWfVhffXf TVgbe'f'YT' \Te'g' j' g'g' X'f'g' \_X'bYTVgaZ'  
YbhaW'a: hl z5\_TV[ öf E\_ f'Zfb'g' XeX'fa'g' hV[ 'UTfVf'Ybe'g' V'f'aYXeXaVX! 5hgf'aVX'g' X'gkkgX\_f'hf'g' Tgb'g' Xe  
E\_ f'bYg' X'cXeVbWhfXWT'[ \Z[ \_ XkTZZXeTgXWVbe' bYTVgaZ'Zj' X' \Z[ gceXWVgg' Tgg' X'aTgheT\_f'g' \_X'a: hl z  
5\_TV[ öf E\_ f'j bh\_W[ Ti XUXXa'haYT' \Te'g'g' XfXTVgbe'f' 6[ b\X'7'f'f'aVbeeXVg'G[ X'gkkgXi XeWfVhffXf E\_  
TVgaZ'g'WTI Zfb'g' XeX'f'abUTfVf'Ybe'g' V'f'aYXeXaVX!

DhXfgba'7\VEVh\_g -8TfI





Fj Zhi ʔc 9\* Wy- ' . Y'

6hhZhhb Zci	I Zhi	9db V'c	H' ʔa	9^ Xj ʔn
H6l	GZWYʔc\ ʔcYʔL gʔʔc\	ʔc[dgb Vi ʔc ʔcY ʔZVh	ʔc[ZgʔcXZh	

I

1.14

I

6beeXVg4afj Xe-6

ETgbaT\_X

6[ b\WX'6'ʔf'g' XUXfgTafj Xd'G[ X'cTffTZX'gX\_f'hf'g' TgcTegWcTag'j [ b[ TWfXXa T'Xff WkgT\XWTWbeT  
cebVhVgUXbeX[ TaW[ TWT[ ʔZ[ Xe'bc'a\ba'bYg' Xfgeb'g' Ta'g' bfX'j [ b[ TWfXXa T' beXWkgT\XWTW'G[ ʔf  
fhZZXfg'g' TgeXTVg'ba'f'gb'Ta TW' TI 'UXTYXVgXWUI' g' XT' bhagbYWkgT'i ʔj XW'a'ceXi ʔbhf TWf!

6[ b\WX'4'ʔf'aVbeeXVg'G[ X'cTffTZX'WbXfa'g' Xagba'g' X'ah' UXe'bYcXbc\_X'j [ b'i ʔj XWg'XTWZfb'g' XeXf'ab  
UTfʔf'Ybe'g' ʔf'aYXeXaVX!'6[ b\WX'5'ʔf'aVbeeXVg'G[ X'cTffTZX'WbXfa'g' Xagba'g' X'\_XaZg' bYg' X'i ʔj ʔaZ  
ceXi ʔbhf TWfZfb'g' XeXf'ab'UTfʔf'Ybe'g' ʔf'aYXeXaVX!'6[ b\WX'7'ʔf'aVbeeXVg'G[ X'cTffTZX'WbXfa'g' Xagba'g' X'g' X  
bYWTI' g' Tg'g'XTWf'i ʔj XWZfb'g' XeXf'ab'UTfʔf'Ybe'g' ʔf'aYXeXaVX!

DhXfgba'7\WVh\_g -8TfI