

A 2022

Ma c 2023

Ma Bab, Pa a & De a ed Sa e a d Lead

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Ú `à|ã&

 $V@^{A}[\varsigma^{1}x||Axa^{4}(-Ac@a-Ax^{4})]^{*}(Ax)^{2}aAc@^{A}O)^{*}[a-@A-Bxca^{4}(-Ac@a-Ax^{4})]^{*}(Ax)^{2}aAc@^{A}O)^{*}[a-@A-Bxca^{4}(-Ac@a-Ax^{4})]^{*}(Ax)^$

FÈ Œ*^	
GÈ Öã•æàã∣ãc^	
HÈ Tæ!¦äæ*^	Ôāçā Á]æ¦c}^!•@ā]Áã}& `åã}*Á•æ{^Ë•^¢Á{榦ãæ*^
IÈ Ú¦^*}æ}&^Áæ}åÁ {æc^¦}āc^ ā}& `åā}*Á {ā•&榦āæ*^	Ú¦^*}æ}&^Áæ}åÁ { æc^¦}āc^Á[ັc•āå^Á[~Á { 榦āæ*^ Ù^¢Á[ັc•āå^Á[-Á { 榦āæ*^ V^¦ { ā}æcā[}Áæ}åÁæà[¦cā[}
ÍÈ Üæ&^	
ÎÈ Ü^ ā*ā[}Á[¦Áà^ ā^~ Çæ&\}[¸ ^å*^{^}cÁæ}å æ&&^]cæ}&^Á[~Áæ D	Ò¢] ã&ācÁc^æ&@ā}*Á[¦Á]¦[{[cā[}Á[~Á&[{]æ¦æcāç^ ¦^ ā*ā[}•Á[c@^¦Ác@æ}ÁQ• æ{ Ô¦ācā&ā•{Á[-ÁQ• æ{ T`• ā{•Á]æ¦cā&ā]æcā}*Áā}Áæ c^¦}æcāç^Á¦^ ā*ā[`•]¦æ&cā•^•
ÏÈ Ù^¢ÁËÁ*^}å^¦Á^˘≈∥āc^Áæ}å •^¢˘æ Áåã•&¦ā {ã}æαã[}	
	ÌÈ Õ^}å^¦Á¦^æ••ã*}{^}c
	JÈ Ù^¢~æ Á[¦ā^}cæcā[}

 $\hat{O}^{\hat{a}} = -2 - \hat{C}^{\hat{a}} = -2 - \hat{C}^{\hat{a}$

Õ¦[`}åÁ¦`|^•Áæ¦^Áā}c¦[å`&^åÁæcÁc@^Áà^*ā}}ä}*Á[-Ác@^Á^^æ!Áā}ÁÚÙPÒÁ|^••[}•Áæ}åÁæ!^Á¦^Ēçā•āc^å
,@^}ÁÜÙÒÁā•Áæåå!^••^åË

Õ¦[`}åÁ¦`|^•Á@^|]Ác[Á{ā}ā{ā•^Á`}ā}c^}å^åÅåã•&|[•`¦^•ÉÅåã•&|[•`¦^•ÁæcÁā}æ]]¦[]¦ãæc^Ácā{^•Á[¦&[{{^}c•Á[-ÁæÁ}^*æcäç^Á}æc`¦^Á{æå^Ác[¸æ¦å•Á[c@^¦Á]`]ā|•ÁǸ@^c@^¦Áā}c^}cā[}æ|Á[¦Á}[cDĚÁÙ`&@*![`}åÁ|`|^•Á•`]][¦cÁà![æå^¦Á&|æ••¦[[{Á¦`|^•Áæ}åÁc@^Á•&@[[|q•Áà^@æçā[`¦Á][|ä&^È

 $V [\dot{A} a^{A} - A c a c^{\hat{A}}] \tilde{a} | \bullet \dot{A} e a^{\hat{A}} + A e @ [] \dot{A} a^{\hat{A}} c^{\hat{A}} [] \dot{A} e^{\hat{A}} e^{\hat{$

 $S^* : [] aA!]^- Ac@æcA { } c a^Aa} & [a^aK]$

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Ü^|æci | }•@i]• æ}å Ù^¢ Òå &æci | à^&æ {^ {æ}åæc | 1^ i} WS •&@ [| • ~! [{ Ù^]c^{à^!} G€GF æ}å c@ ^!^~ [!^É ~ [| [] i } * WS à^•c] !æ&ci&^Ê , ^ @æç^ , !icc^} æ Ù&@^ {^ [~Š^æ!}i } * ~ [! Ú!i {æ!^œ}å[Û ^]i [! Û&@ [| •c *å^}c• c [~ [| [] æ•]æ!c [~ [* ! Ú!)æ]ð & * !!i& * | * { È V@^ |^••[}• @æç^ } æci [] È T^å ,æ æ ædi [] È T^å ,æ ædi [] Ædi []

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ā {]| ^ { ^}cæcā[}Áæ}åÁå^|āç^!^Á[-Ác@ā•Á][|ā&^ÈÁV@^Á•&@[[|Áæ&@ā^ç^•Ác@ā•Áā}Ác@^Á~[||[¸ā}*ÁIÁ¸æ^•K
FÈ V!æā}ā}*Áæ}åÁ•`]][!cÁ~[!Á•cæ~Áå^|āç^!ā}*Ác@^Ác^æ&@ā}*Áā}Á&|æ••![[{ •È

- GÈ Š^cc^¦ c[]æ¦^}c• å}~[¦{å}* c@^{ [~ c@^][|å&^ æ}å c^æ&@å}* [~ ÜÙÒÊ æ||[¸å}* c@^{ &@ [å&^Ác[Á[]cÁ[*cÁ.@^}Á][••åà|^È
- HÈ Ú¦^•^}cæcā[} c[]æ¦^}c• ^¢]|æâ}ã}* c@^ å^|âç^¦^ [~ ÜÙÒ c^æ&@ã}* ã} Ÿ^æ¦ Í B Î ã} c@^ à^}^-ãc•Áæ}åÁ|ã { ãcæcã[}•Á ¸ãc@ã}Á[~¦Á&[}c^¢cÈ
- IÈ Ù@æ¦ā}*Á[`¦ÁÜÙÒÁÚ[|ā&^Á[}Á[`¦Á¸^à•āc^È

 $Y^{\bar{a}} = \frac{1}{2} \left[(-1)^2 + (-1)^$

 $\mathring{S}^{\bullet\bullet}[] \mathring{A}F \qquad \qquad V@^{\mathring{A}}] @ [-\mathring{A}c@^{\mathring{A}} @ [\mathring{A}c@^{\mathring{A}}, []]$

Š^••[}ÁG Y@æcÁ¸ā||Á@æ]]^}Ác[Ác@^ā¦Áà[åā^•Á厦ā}*Á]˘à^¦c^

Š^••[}ÁH Œà[˘cÁc@^Áã {][¦cæ}&^Á[~Á]^¦•[}æ|Á@^*ā^}^Á厦ā}*Á]Ťà^¦c^

Š^••[}ÁI P[¸Áæ}åÁ¸@^Á^ { [cā[}•Á { æ^Á&@æ}*^Á厦ā}*Á]ˇà^¦c^

Q} \ddot{Y}^a | \hat{I} _^ &[}ci] \ddot{A} _ c[|^æ|} æà[c][•iciç^ !^|æci[}•@i]•Ê !^&æ] c@^ • `àb^&c [~] `à^!c^ æ}åćc@^} \dot{A} |^æ!} \dot{A} = c@^ • `àb^&c [~] `à^!c^

^^æ¦ÁÍD

Š^••[}ÁG Œà[˘cÁ{æ}æ*ã}*Á&@æ}*^Á·Á}^¸Á¦[|^•Áæ}åÁ!^•][}•ãàã|ācā^•Áæ•

,^Á*¦[,Á~]ÈÁÁÔ@æ}*ã}*Á~¦ã^}å•@ã]•

Š^••[}ÁH Œà[`cÁ, @æcÁ&[}•cāc`c^•ÁæÁ][•ācāç^ÊÁ@^æ|c@^Á!^|æcā[}•@ā]Áæ}åÁc@æc

 $\ddot{U}^{a} = \ddot{u}^{a} = \ddot{u}^{b} = \ddot{u}^{b}$

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Š^••[}ÁG

Š^••[}ÁH Ô[}•^}c

Ò~~æ|ãc^Áã}Á¦^|æcã[}•@ã]• Š^••[}ÁI

Š^••[}ÁÍ Õ^}å^¦Á•c^¦^[c^]^•ÁÐÁ^˘˘æ|ãc^

