

mCÄmNÄ ÉksarkmCa

krNI TI KmI I K08756

smÄsnCamKy gan gl ePTRbus Gayu 54qäm

enAPthicigekah XMQexp RstkekaHFmextkNpI

enÄef 20 Exmkra qäm 2003

smÄsneday³ pan; sCa

sCa³ BÄQpHGEdreI akBÜ?

I P eQpHgan gl

sCa³ gan gl

I P)aT

sCa³ GaylmanEdreI akBÜ?

I P 54

sCa³ PthEdI BÜsenAentHehAPthiGedr?

I P Pthicigekah Pthicigekah XMQexp RstkekaHFmextkNpI

sCa³ ctHbhanRstkkÄNitenAxagNa?

I P RstkkÄNitenAhigig

sCa³ «Bk BÄQpHGedr?

I P eQpHTI gan

sCa³ ctHmby

I P mbyeQpHsux Rst

sCa³ sux Rst

I P)aT

s(Ca³) rā l'ēf'kātēnArseT?

I β Kāt:sab;tal;BeGqā'W OeNaH

s(Ca³) ehlyBthānRKYsar RKYsareQāHGEdr?

I β RKYsar Kāt:sābehly

s(Ca³) cū\I VenASl ;kūb;manak;GBāg?

I β sl ;kūb(R)alāhynak;

s(Ca³) R)alāhynak;

I β)aT

s(Ca³) enAkūgRKYsarTal;GseG?

I β \I VkkhēcAvamanEvkmanqā'geTAGs;bhakehly sl EtRbus²hūg

s(Ca³) Gā ehlyBthānbgbūb;manakEdr?

I β manbgbūb;KiteTAsBēf'qāASl R)alākn+

s(Ca³) cū(Tal;g)at;xū)at;Gf?

epSg³ enAR)alāhynak;

I β enAR)alāhynakeG?

epSg³ R)alāhynak;

I β)at;xūmākeQāHgan KūnI lhūg

s(Ca³) Rsl?

I β Rsl

s(Ca³))at;xū)Etmāk;hūgeT?

I β)aT)at;xū)EtmākeT

s(Ca³) ehlyKāt;)at;Bp;HeTAtal;Bqā'WNaEdrBū?

I β qā'W 2

sCa³ Katmkel ghigEnAqāNāEdrBū?

I P GKiteTA eTA)anbīnānqāMdlc)ateTABrblqāEtlomkel gn+

epSg³ mk)anqāW 3 73mkmg eTA72-73 73mkmg

I P hīgehlykūgqāW 3

sCa³ mk mkel gpH

I P)aT mkel gpH

epSg³ mkel ghīgkat;skRbus

sCa³ ehlymkel ghīg«BīkmpyBdnAeT?

I P enAeT«BīkeT mpy` sābehly

sCa³ ehlyKat;)anCb«BīkeT?

I P)an)anCb

sCa³ ehlyKatmanniyayGkMeT?

I P eRbaHkicParhīg eRbaHmīkarvaepSg²Kā RtgniyayG²k³4Gt;)andīgEdrNa

sCa³)aT

I P eRbaHkicParvaepSg²Kā

sCa³ Katmkry³eBl bīnān)anKateTAVij ?

I P cMhRbEhI CaknEx

sCa³ KatmkryEdrGBaḡ

I P)aT mk)anyEdr

sCa³ mkhīgeKmkGayeFIGEdr?

I P eG mkhīg mk mkdlcGtmaneFIGlpg

epSg³ mkel g

I P mkel ghīg ehlyeTAVij Etmḡ eTA)atrht

sCa³ kal KateTaeI ktI1 ecj BpMeTAhīgKatmanGaylōnānEdr?

epSg³ KateTAhigGayu

I P RbEhI xlgGayuGagemhigtamemil n+

epSg³ xlg: 22 rA 23Gihig

I P xlg:22 - 23 eBl Edl mkel gpHhigKaTAvij kigGayu22-23higdI eTA
vij manGgikSmakRbiscINas:| pn mk mksYrk' sYfapHNaEQaH
gan gl

sCa³ higeKmkSYkigqamNaEdr?

I P kigqam 3

sCa³ eGKateTA)atehlyeG?

I P)aT higybH'eTA)atehly manmakmksY'fa

sCa³ BhancaTAKatmkel gpHeT

I P eGdtGt:caH

sCa³ ehlyry³eBl Edl KatmkehlyKateTAvij ehlyhigBry³eBl higeTAdI eK
mksYeRkayhig

I P)aT

sCa³ RbEhI CabmpnEdr?

I P RbEhI ry³RbEhI dcmindI knHExpG RsabmanGikmksY mksY sY'sY
fa ehlybHmkmankarG? eGmk mkcgeFRbvtrbbHenaH

dI Gayu25ehly

chlenAGgPaBnardI EtGayu25qam)anvaeGayerobkar

RKanEt'sY)anbinNig

eT.

sCa³ ehlyeKGtniyaysYGeToteTBU?

I P)aT

sCa³ Gt;srGeToteT

I P ehly ehlyk^{3/4}vaeGay'ecj mk ehlymkniyayGaEdgeQpHemPthiCMan;
bul BteQpHtaNb²

sCa³ GA

I P niyayCamlyemPthihig Rtgniyayyagemic²k^{3/4}Gt;)andigEdrNa

sCa³ ctBlkal minqalW5BbnAÉNaEdr?

I P 'enAhigEdr

sCa³ ctlerKay75mk?

I P erKayBI75mk'vaeGaypasPthieTAenAxagPthieRtAkk; pasPthiehly

sCa³ enACManbul BthigG?

I P)aT enACManbul Bthig

sCa³ ehlyeKeGayGEdrBlkal hig?

I P)aT?

sCa³ eKeGayeFIGEdr?

I P 'xagEpik xagEpikesd^{ic}PKRtl

sCa³)aT ehlyI MakeTxagrRthig?

I P Gl eTahCal MakayagNake^{3/4}daykKantij EtYEdr dacxatRtVeteFIGB^{ic}hig

sCa³ ehlyctBlkarhbckGR?

I P GaerOgbBaakarhbckk^{ic}MLigesd^{ic}Pos; minsVcaxXatb^{ic}paneT

vamanbBaà

xXat enAxagkardaneylgerag)ay tamPthitamX^{ic}Minly²Ga+vamanbBaàxXat

sCa³ ct^{ic}keca k^{ic}keAeKeGayenAC^{ic}MaT?

I P k^{ic}keAenAedayELkeTA

sCa³ ct^{ic}RbBn^{ic}BT?

I P RbBn&znAedayELkEdr 'kznAedayELkeTA enAkardameragbugstigeGaH

s(Ca³) epSgKã²BKã

I P)aT enAepSg²BKã

s(Ca³) cHeBl yb;Gl Kat;GtmanmkC'bvij eT?

I P GteT enAKEngNaKãAkEnghigehly

s(Ca³) cHkHBEEdl manGayeRkam7-8qãhigKeGayenAÉNa?

I P eGayenAkõgmNã

s(Ca³) eKeGayeFikarEdrBU?

I P enAkõgmNã eKeGayd(cfae)asdl ekHbGacmeKa eGel lkdhayGaybnlcbnk
higGa+GahigxagEpkkl²

s(Ca³) cHBUKmanKMNt;fabnãnéfKeGaymkCb mkpH

mkel gpHCbCMBn&hmg?

I P Gt; GtmanfaEdr binEtfa éfNa»kastlhr dcfaktheAGeqótmk mlyemag
BremagGeTAKEngvij eTA

s(Ca³) eqótmkrk³&Kmk?

I P eRBAH'xagEpikeSdãicRãdresrl

s(Ca³))aT

I P mindleygenAkõkardankõnameylgksikreFIRseVeFIRseTNa

s(Ca³))aT

I P GahigeylgRtVmanc,ab;TM ab; eylgcej mkRtVmanc,ab; ehlyd(xag' xag
esdãicRãsrledlmlyXhig kEngNak¾edlr)anEdrGahigCManbul Bt

s(Ca³)

ehlyedrensathigGRtVmanRbFanGikMNt;famlyéftveGayrk)anbãpãeT

?

I P GtmankMntEdr tamI TPaBEdI rk)an
ehlyebifabBaifa\I VkmlyéfKaI
karN_fa\I VRbCWFlem.ceGay)ankirvag30éfKigmyXWFlem.ceGay)anmly
y

ryKILÚebel ISB100KILÚael ISBEpnkarNeTaeTot cURtvaerRcheTaeBkNa
cUmanBINark manEtesdkeicTamXhigrk manyhmancamÉNaGteT niyay
BRtenahmhaEmRtmhartehtly niyayBisikeTotGt:I ÆT ebifaeKal karN_fa
\I VmkyéfikeGay)an100KILÚmanEtB1200-300KILÚtl

sCa³ GÅGBaBkaI higrBthansITedreRchnkEng?

I P)aT edrTUadXhigr

sCa³ BedrGBaBhanEdI I faCManhigrmanekSM abmnisSGEdrrÆT?

I P man

sCa³)anI ÆnAkEngNaEdrBU?

I P erBaHkaI BCenóSBibgbBIPBj mk

sCa³ GÅ

I P clú mkkirkardaneylgGahigrkBgeBj TMhg el Ik Tmb; ClkRbLayehlyNa

sCa³)aT

I P

emaHehlybgbBhCenóSBIPBj mkmankar)ak:kM alderBaHeGayeFikarenOyh

t;

enaH kATCaQÅehlydCfaCmPaBk?manbBaaxWxat QÅdI EtQÅKfaQÅ QÅ
CastiGarmNEn EtQÅstiGarmNekGt:IkT eKbBaBfaeTaeGayeTAykGgã
eTAykes,ogGGBaBNa binykeTAvayecal ehly CakEsIgeQpHTy Ky
enAPthieClgekaHedrCenóSBIPBj mk ykeTAvayecal enAPthieClgekaHeylg

enAeQlexA va yehlyykeTABnicecal eTot

sCa³ GmXlj pAl rK³?

I P eXlj pAl ; 'GgAymxpAl' hngGa+ 'sYfabgeTAÉNa? GÀTlbEteglbBlQAnk
\\I VeKeGay 'eTAykGgAr ehly') anniyayfaGAbgÉgGtdigeTGr? I ,iceTA
ykGgAr bEn\\I VhngEblogÉgePosxhik³PosGtr'c dlcaval eBkCMan;
bul Bt val NasrkkEngrt;Gtr'ceT EnbgÉgeKykeTAvayehly

sCa³ BldgfaGB@hngfaeblykeTAykGgArKÁykeTAvayecal ?

I P)aT)aT G'tamdans'it Nas; CMan;bul Bt ykKÁeTAvayecal enAmldgekah
dakBniccll Tikecal

sCa³)aT

I P bldTPsItag

sCa³ cUlBhansÁI eTGikkykeTAvayhngBhansÁI eQpH?

I P GikeTAykqvayhngKÁeQpHmanRbFanQAb

sCa³ bin\\I VeKenA?

I P \\I VeKenA enAERBkrs; xagXmS@BABh)aT RslkkMlNitenABBmasenAPthi
ekaHtlceylgenH

sCa³)aT mkdl ;\\I VgtmanGikNamktamrksGslkGKat;Gr?

I P dlcfasml;\\I VebisgsikeTAK³anEdr binK@GaymankmpmaneBorteTAeTotNa
vaxtl

sCa³ cUlBUeRKABIBhanhngBhansÁI BINaeToteT ykmmisSykGeTAGB@?

I P eXlj eXlj Etéddl eXlj EtGamlyhngE)aT eQpHblP

enAPthiekaHtlceylg

enH kltTahanhngGB@Edr hngenAkngGgPaB ehlydl ;GB@dlcvamitekC²
GteFlkargar eKtam)anebTukk³incMlj dkecj k³inxatEdr kal CMan;

bu Bt vaGBa@Nab@ GB@geKyeTAvayecal RBI b;? ykKacgdak;Tk
ykeTAvayecal enAcgeBakeQlexA cgep@bhigdfhigEdr

hig'eXlj CakEslg

KA'eXlj Blnak:hig hlg hig'eXlj nigEPik'

sCa³ ctBlkal higsmx/higvtGaramenAkigPthiXB@KeFMyagemicEdr?

I P vtGaram kEngxdl dePaKeRcheKyeFmnlreBTukigvtp

sCa³ ctukigvtbhig GtmanRBHGI enAkigvtbhigemcEdr?

I P RBHeKel lkeLgykeTAKgenAkigTikTalgGs;

sCa³ e)aHTM ak;TikGB@?

I P)aT na@KEsgykeTAKtkigTikeGah

sCa³ ctel aksgeI akGeKeGayman?

I P el aksgeI akGeKeGayman? GsrI lgKansI eT

sCa³ karpSik higeKmanviFlpSikGRtmRtVeT?

I P GtmanviFlpSikeT el akKatdks,gecj Etmig

sCa³ ehlyBERKABib@BD) atx@higBhanbgb@hik@K@nRK@SarNaeTotsabenAkigCMan;
bu Bthig

I P GaerOgbBa@sabenAkigCMan;bu BtvamanEdrenAkigCMan;bu BtvamanEdr
m@yFMhigeKyeTAvayecal enAeKal TenhigEdr ehly«BlkFmlyeTotk@K
ykeTAvayecal enAeKal TenEdr higExS²paI rbs;'

sCa³ ehlyB@G@b@sinCaB@al eF@dligGikEdI ykeTASm ab;GihigGa+GikEdI sM ab;
mn@s@ld@Cabgb@h@rbs;BU Bthig m@yFm@s;B@Gihig ehlyebeKrsenAmkdI ;
sB@f@nH etlB@hankMitcg;sgsikeKeT?

I P eberOgbBa@E@bkehlycgmankmhigcg;sgsikeEdr EtdI ;yktamFmRBHBT@S
RBHFm' RBHsg@e@y@lgNa eBork@geBor ebe@y@lgcg;sgsikek@;anEdr b@n@pa

maneBoreTAVij eTAmk emaHehlySM abecal cH eblsgAnvaeTAGB@geTAEhly
eKfabTRbl %/BICsasn_vartVETGB@geTAEhly vaBi)akNas;
sCa³ cHebBral éfñgCnéddl dlc`niyayGMaj mij GB@ge eKfab,yk«Bikmpay
eGl bgbVhBUmpayFIBETASM ab;Ga+ehlyeKmankhecAeKenArsenAkñgPñiGa+
etBhanKMitKitcgbeBañkhecABEGaySbexñkhecAeKhñgeT?
I P minbeBañT manEtksageLg ksageLgyagem:cfakñgeBorNaebfaeFlem:c
KäsabenACMan:bul BtehlyeXlj faeKsabeHly emaHehlyebCManenHebl
eylgcgeBor eylgSM abeTaeToteTAvantEtGsBICsasnExpreygeHly
NabñNa

sCa³ ehlyBerOgravEdl BñiyayR)ab;GMaj mij hñg
BhanEdl niyayR)abekg²

rikñkñ GñkCitxagGl khecABEGeGaydñgeT?

I P `]sSah_R)abEdr erOgGabBaàbgbVñkñkñj erOgbBaàmanExSry³Edl manma
bgbVñññ«BikmpayCMan:bul BtEdl eKykeTASM abedayerBépseday
sahavbñutenH dl EtEbkehlybgbVñkññancgkññgddc`hñgEdr binEtfaman
eKal karNmanKMitmlyNaeFlem:ceblsabeTAEhly

eKfasgAnvaRtVETGB@geTA

ehly ebeylsgsñkeTAVij eTA)anRtmEtsabddcEtKahñg binEtfabltampñ
RBHeblsgsñk vaEtgEtmankmñmaneBoreTAVij eTAmk NaehlyebRCul fasab;
ehlyeGaysabeTA eblsgAnvaedreTAGB@geTAEhly kñgeBorGl

sCa³)at cñBkal hñgBhansñl emdñknañññ?

I P emdñknañññ

sCa³ Edl I ãQpHeT?

I P emdñknañññ tññ:25`sñl ;

RbLayminekteTeTACael IkPÅ ekfakargartlc²eKel IkPÅGBaŋ ebifaClkRbLay
minektNaEn Rskrkth'GamlyenH RBl mTikGaEdgExktIkeylgTikGaRtm²
cegħ Rt²k)aT el IkPÅhŋ j akTRTic minfanarl minfaywCn minfakunara
minfakunarl niyayBeClgédrel Hrl KyGsehly Tiksu kal BICManbul Bt
evTnaNas;

s(Ca³ eh t(Gl)anCaBhiyayR) aberOgevTnaTalGShŋR) abekp²eGaydŋ?
I P erBaHerOgRbvthsa[®]skal BICManbul BtvaClct; vaevTnadl fak'hŋ)an'brÅ
R)abvaeGaydŋ fakal BICManbul BtvaGeBaŋ kal bin²Égkal enAkumar
kal BICManbul BtevTnaNas; min)anRSM dlsBefŋHeT édeClgrel Hrl Ky
Gsehly el IkPÅ el IkRbLayhŋ

s(Ca³ ehlyGBaŋKitfaetlkardikna~~l~~Asmly/hŋmanl kN³yagem:cEdr?
I P kardikna~~l~~smly/hŋKÅ kN³eKeRbl Tŋpckar GikNaeKcBlkgCŋGt.)an
mlydg

CaBrdg Cabldgc,asCavayecal ehly KanTiket
s(Ca³ ehlyBU Bthandŋfasmly/hŋmankarsM abmnisSSM abGeT? Blcg;)an
tu akaredm, kateTasemdikna~~l~~RkkmEdrrÅT?

I P GaerOgbBaŋcg;)anBitCacg;)anehly RkanEtI fakarkateTasemdikna~~l~~Rkkm
RkkmGsry³Bl4qāMTA5qāMI ÅtI Å binminTan;)ankateTasesah

s(Ca³ binBKitfa?
I P ehly k~~4~~faehtGik~~4~~karkateTashŋGik~~4~~temH?
s(Ca³ GBaŋBlcgeGaykarkateTashŋgeGayeklteLlgkŋeBl qab²hŋ?

I P)aT

s(Ca³ BKitfaetlkarkateTashŋvanŋGacpp RbeyacnGldl RbetScatieylgEdr?

I ß GaerOgbBaä karkateTasemExpRkxmenH ebBaküfatul akarkateTasvaman
bBaäcaTeqby Käehly etGikNak,t;Cati GikNamink,t;Cati dgehly

S Ca^3

I ß

SCa³

| P

$S\text{Ca}^3$

| β

$S\text{Ca}^3$

| β