

**PEMBANGUNAN DAN KEBERKESANAN
APLIKASI MOBIL PERMAINAN PENDIDIKAN
BAGI MURID MASALAH PEMBELAJARAN
DALAM MEMPELAJARI PECAHAN**

MURUGESU A/L SUPERMANIAM

UNIVERSITI SAINS MALAYSIA

2023

**PEMBANGUNAN DAN KEBERKESANAN
APLIKASI MOBIL PERMAINAN PENDIDIKAN
BAGI MURID MASALAH PEMBELAJARAN
DALAM MEMPELAJARI PECAHAN**

oleh

MURUGESU A/L SUPERMANIAM

**Tesis yang diserahkan untuk
memenuhi keperluan bagi
Ijazah Doktor Falsafah**

Mac 2023

PENGHARGAAN

Terlebih dahulu saya ingin mengambil kesempatan di sini untuk memanjatkan rasa kesyukuran kepada tuhan kerana, telah memberi petunjuk, ilham serta kekuatan kepada saya bagi menyempurnakan tesis ini dengan jayanya. Ucapan terima kasih khas saya tujukan kepada penyelia yang juga mentor saya, Dr. Rozniza Binti Zaharudin yang sentiasa memberi bimbingan dan tunjuk ajar kepada saya bagi menyempurnakan tesis ini. Galakan yang beliau berikan, memberi suntikan semangat kepada saya menumpu perhatian sepenuhnya kepada kerja tesis ini agar ianya dapat dikendalikan dengan sempurna. Tanpa sokongan dan usaha beliau yang berterusan, tesis ini tidak akan berjaya dihasilkan. Penyediaan tesis ini melibatkan banyak pihak khususnya penyelidik, ahli akademik dan responden yang telah menyumbang kepada penghasilan tesis ini. Saya juga berhutang budi kepada Kementarian Pendidikan Malaysia (Bahagian Biasiswa dan Pembiayaan) kerana membiayai penyelidikan ini dan juga perbelanjaan sara hidup melalui elaun dan insentif. Tidak dilupakan juga kepada Kementerian Pendidikan Malaysia (KPM) dan Universiti Sains Malaysia (USM) atas segala kerjasama, nasihat, bimbingan dan galakan yang telah menyumbang kepada penghasilan tesis ini. Ribuan terima kasih juga diucapkan kepada Jabatan Pelajaran Negeri Perak, Pejabat Pendidikan Daerah Kinta Utara Perak, sekolah, guru dan murid yang terlibat secara langsung dalam kajian ini. Saya juga berhutang budi kepada semua sahabat di USM dan Sekolah yang banyak membantu dan memberi kerjasama serta dorongan untuk menyiapkan tesis ini. Jutaan penghargaan juga ingin saya sampaikan kepada ahli keluarga di atas dorongan dan sokongan yang tidak kenal erti jemu dan berterusan sehingga saya berjaya menamatkan pengajian saya.

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P-KSSMPK	Aplikasi Mobile Permainan Pendidikan Pecahan Kurikulum Standard Sekolah Menengah Pendidikan Khas
P-KSSMPKps	Aplikasi Mobile Permainan Pendidikan Pecahan Kurikulum Standard Sekolah Menengah Pendidikan Khas dengan Penggerak Penjelasan Sendiri
<i>QR-link</i> instrument pecahan dan <i>You Tube</i>	Perisian Kursus Latih Tubi Kementerian Pendidikan Malaysia
KPM	Kementerian Pendidikan Malaysia
SPSS	<i>Statistical Packages for Social Science</i>
KOR	<i>Knowledge of Results</i>
KCR	<i>Knowledge of Correct Response</i>
EF	<i>Elaborated Feedback</i>

SENARAI LAMPIRAN

LAMPIRAN	A	SOALAN UJIAN PRA
LAMPIRAN	B	SOALAN UJIAN PASCA
LAMPIRAN	C	OBJEKTIF DAN PERMASALAHAN PECAHAN
LAMPIRAN	D	JADUAL PERSETUJUAN ITEM
LAMPIRAN	E	SOALAN TEMUBUAL MURID UJIAN
LAMPIRAN	F	DIAGNOSTIK
LAMPIRAN	G	JADUAL PENENTUAN SAIZ SAMPEL (KREJCIE DAN MORGAN, 1970)

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PEMBELAJARAN DALAM MEMPELAJARI PECAHAN**

ABSTRAK

Pecahan merupakan salah satu topik dalam silibus matematik Kurikulum Standard Sekolah Menengah Pendidikan Khas (KSSMPK) sekolah menengah di Malaysia. Pencapaian bagi kebanyakan murid masalah pembelajaran dalam topik pecahan adalah rendah. Oleh itu, kajian ini dijalankan untuk membangunkan serta menguji keberkesanan strategi pembelajaran melalui aplikasi mobile permainan pendidikan bagi silibus Pecahan KSSMPK (P-KSSMPK) dengan penggerak penjelasan sendiri (P-KSSMPKps) berbanding dengan teknologi aras rendah seperti *QR-link instrument* pecahan dan *YouTube* yang melibatkan seramai 152 orang murid pendidikan khas bermasalah pembelajaran tingkatan 1, 2 dan 3 yang mengikuti silibus KSSMPK dari 10 buah Sekolah Menengah Kebangsaan yang mempunyai Program Integrasi Pendidikan Khas di Daerah Kinta Utara, Perak untuk memastikan kaedah mod pembelajaran disokong oleh komposisi komponen perekaan dan aplikasi mobile pendidikan yang efisien bagi meningkatkan pencapaian dan minat di kalangan murid secara khusus dan umum berpandukan reka bentuk kajian kuasi-eksperimental dengan faktorial 3 x 2 di mana mengambil kira berlainan tahap kebolehan (tinggi/rendah) setiap responden. Pemboleh ubah bersandar adalah pencapaian murid dalam pecahan dan minat murid dalam penggunaan aplikasi mobile dalam pendidikan pecahan, pemboleh ubah bebas adalah mod aplikasi mobile pendidikan dan pemboleh ubah moderator adalah tahap kebolehan murid. Aplikasi Mobile permainan pendidikan P-KSSMPK

dibangunkan berlandaskan kepada model prototaip pantas dan direka bentuk berdasarkan sembilan adegan pengajaran Gagne, komponen permainan, komposisi komponen perekaan iaitu model verbal, piktorial aotentik (gambar kehidupan sebenar), aktiviti penceritaan aotentik (penceritaan kehidupan sebenar), faktor sokongan (penggerak penjelasan sendiri dan maklum balas), sokongan multimedia Mayer, penggerak pengetahuan sedia ada dan teknik cebisan (*Chunking*) bersama teori-teori pembelajaran bagi memastikan proses konstruktif yang berkesan semasa pembelajaran. Data kajian dianalisis menggunakan perisian IBM SPSS ver.26 dengan analisis perbandingan parametrik ujian-t dan tak parametrik *Mann Whitney U*. Hasil dapatan kajian menunjukkan komposisi faktor perekaan dalam aplikasi mobile permainan pendidikan P-KSSMPK (Min 87.00) membantu meningkatkan pencapaian murid berbanding *QR-link instrument pecahan dan YouTube* (Min 44.76) dengan nilai perbezaan min sebanyak 42.23. Murid kebolehan tinggi yang menggunakan P-KSSMPKps menunjukkan pencapaian yang lebih baik secara signifikan, dimana nilai *Asymp. Sig. (2-tailed)* untuk ujian dua sisi adalah signifikan .01 ($.01 < .05$) bagi ujian pra dan pasca, dimana nilai statistik ujian Z bagi ujian pra lebih kecil iaitu -10.60 berbanding dengan ujian pasca pada -10.79. Manakala, murid kebolehan rendah menggunakan P-KSSMPKps menunjukkan pencapaian yang lebih baik secara signifikan, dimana nilai *Asymp. Sig. (2-tailed)* untuk ujian dua sisi adalah signifikan .01 ($.01 < .05$) bagi ujian pra dan pasca, dimana nilai statistik ujian Z bagi ujian pra lebih kecil iaitu -10.00 berbanding dengan ujian pasca pada -10.29. Ini bermakna murid kebolehan tinggi dan kebolehan rendah yang menggunakan aplikasi mobile permainan pendidikan P-KSSMPKps mempunyai skor pencapaian yang lebih tinggi berbanding murid kebolehan tinggi dan kebolehan rendah yang menggunakan teknologi aras rendah *QR-link instrumen pecahan dan YouTube*. Hasil dapatan ini juga

disokong oleh dapatan temubual murid di mana murid kebolehan tinggi boleh mempelajari pecahan dengan penggerak penjelasan sendiri atau tanpa penggerak penjelasan sendiri manakala murid kebolehan rendah boleh mempelajari pecahan hanya apabila disediakan penggerak penjelasan sendiri.

**THE DEVELOPMENT AND EFFECTIVENESS OF A GAME-BASED
EDUCATIONAL MOBILE APPLICATION FOR STUDENTS WITH
LEARNING DISABILITIES IN LEARNING FRACTION**

ABSTRACT

Fraction is one of the topics covered in the secondary school mathematics syllabus in Malaysia. This difficulty is more felt by learning problem students who have a shortage compared to typical students. Therefore, this study is conducted to develop and test the effectiveness of learning strategies through the Mobile Game Education app for the KSSMPK fractional syllabus (P-KSSMPK) with its self-explanation (P-KSSMPKps) and low-level technology such as QR-link instruments fraction and YouTube, Mountingboard Graphic pictures, textbooks, and whiteboards. It involves 152 special education students with Form 1, 2 and 3 students who follow the Secondary School Standards of Special Education Secondary School (KSSMPK) from 10 secondary schools with special education integration programs in districts North Kinta, Perak. This research was conducted to ensure that the learning mode method was supported by the component composition and efficient mobile application modes to improve the achievement and interest among students in particular. This study is conducted based on the design of quasi-experimental studies with Factorial 3 x 2, considering different levels of ability (high/low) per respondent. The dependent variable is the achievement and interest of students in the use of mobile applications in fraction education, independent variables are Mobile Application Mode Education, and moderator variables are the level of student capabilities. Game-based Mobile Application for Education P-KSSMPK is developed based on the rapid prototype model. Moreover, it is designed based on nine scenes of Gagne teaching, game

components, composition components of the verbal model, pictorial of authentic (real-life picture), aunting activity (real-life storytelling), factors support (self-explanatory drive and feedback), multimedia Mayer support, existing knowledge drivers and Chunking techniques with learning theories to ensure effective constructive processes during learning. While the survey data was analyzed using SPSS version 26 software with a comparative analysis of T-Test parametric and non-parametric Mann Whitney U. The results of the study showed the composition of design factors in the Mobile Game Education Game P-KSSMPK (Min 87.00) helped improve student achievement compared to QR-link fraction instrument and YouTube (min 44.76) with a mean difference value of 42.23. Overall, fraction achievements are significantly different between each educational software. High ability students that use P-KSSMPKPS show better achievements, where the value of Asymp. Sig. (2-tailed) for two-sided tests is significant .01 ($.01 < .05$) for pre and post-tests, where test statistical value Z for a smaller pre-test of -10.60 compared to post -10.79 test. Meanwhile, low-ability students who use P-KSSMPKps show better achievement, where the value of Asymp. Sig. (2-tailed) for a 2-tailed test is significant .01 ($.01 < .05$) for pre and post-tests, where the test statistical value z for a smaller pre-test of -10.00 compared to the post -10.29 test. It can be concluded that high and low ability pupils using the Mobile Education Game apps of P-KSSMPKps have higher achievement scores than high and low-capacity students using low-level QR-link technology of the fractional instrument and YouTube. The findings are also supported by the findings of the student interview, where high ability students can learn fractions with their self-explanatory drivers or without self-explanatory drivers. In contrast, lower abilities can learn fractions only when prepared for their self-explanatory.

BAB 1

PENDAHULUAN

1.1 Pengenalan

Kebanyakan murid pendidikan khas masalah pembelajaran menghadapi masalah dalam pembelajaran pecahan. Di samping itu, mereka juga mempunyai daya pengamatan serta daya rangsangan yang lemah (Simsek, 2016). Keadaan ini mendorong pengkaji untuk mereka bentuk dan mengenal pasti mod aplikasi pendidikan yang efektif bagi pecahan di kalangan murid pendidikan khas dan juga secara khusus bagi murid masalah pembelajaran yang menguasai kemahiran membaca, menulis dan mengira (3M).

Kurikulum Pendidikan Khas Masalah pembelajaran (PKBP) telah digubal berasaskan kepelbagaian keupayaan individu berkeperluan khas yang tidak dapat menerima manfaat daripada program arus perdana. Kurikulum Standard Sekolah Menengah (KSSM) dan Kurikulum Standard Sekolah Menengah Pendidikan Khas (KSSMPK) yang dilaksanakan secara berperingkat-peringkat mulai tahun 2017 akan menggantikan Kurikulum Bersepadu Sekolah Menengah (KBSM) yang mula dilaksanakan pada tahun 1988.

Pada dasarnya dalam komponen Matematik, matlamat utamanya adalah memberi peluang murid pendidikan khas belajar konsep nombor, membandingkan nilai, menyelesaikan masalah penakulan, mendengar dan bertutur. Walaupun ini adalah kemahiran-kemahiran asas namun masih ramai di kalangan mereka belum menguasai sepenuhnya kemahiran tersebut.

Rgpf gnæcp'r go dgræctep'dgtcucunæp'r gto ckæcp'o qdkæg'o co r w'o go dgtk'ngucp"
{ cpi 'r qukæh'ngr cf c'o wtk' f cræo 'r tqugu'r gpi clctep'f cp'r go dgræctep'r gecj cp'æ ckdæp."
4237-0'kæ'ngtæpc.'r tqugu'o go kpf cj næp'uguwæw'o cmæo cv'f etkr cf c'dæwæ'{ cpi "uævæni'
ngr cf c" uæwæ" eqtæni' r go dgræctep" { cpi " dætw' f gpi cp" ngdj " o gpætkæ" f kpcæ kni' f cp"
kpvætkæh'f gpi cp"dæpwæp"o gf kæ/o gf kæ"væo æj cp"ugr gt'k'æwf kq."ækf gq."cpkæ cuk'f cp"
i tæhæni'o gpætkæni'o kpcv'o wtk' 'æpwæni'o go r græctæk'r gecj cp0'

Mælkæp" qngj " Uæwælk" *4237+æ" o gp{ævæ næp" æj cy c" r go dgræctep" dgtcucunæp"
o wæko gf kæ" f cr cv' o go dgtkæp" ukæwæuk'r go dgræctep" { cpi " ngdj " kpvætkæh'f k' cpætc"
o wtk' " f gpi cp" kæk' r go dgræctep0' Rtqugu" kæk' cæpæp" f cr cv' o go r gtegr ævæp" r tqugu"
r gpi clctep" f cp" r go dgræctep0' Mægf æj " kæk' co cv' dgtngucp" f cp" dgtwæ c{c" æpwæni'
o go dko dæpi " f cp" o go dgpæwæni'o gpæni'ugtæ" r go knætkæp" o wtk' " ci æt" ngdj " ntgævæh'f cp"
o go æj co k' næpwægr " kæ w' f gpi cp" ngdj " dgtngucp0' Ugpætkæ" r go dgræctep" cucu"
r gp{græuckæp" o cvægo ævæni' æqr kni' r gecj cp" ægræj " o wæ" dgtærkæj " ætæj " f ætk' o gpi i wæpæ næp"
nægf æj 'æmpæqæni k'ætcæ'tgpæf æj 'ng'ægf æj 'dgtcucunæp"o wæko gf kæ0'

Ræf c'f cuctæp{c."r gpæf kæ kni' { cpi "ætrækdæv'f gpi cp"i qæpi cp"dgtngægr gtæ næp"nj cu" kæk"
r gtæw'o gpi j æukæ næp"cmækækk/cmækækk'ævæw'æj cp"dæpw'o gpi clæct" { cpi "uguwæk'f gpi cp"
ngægræci ækæp" ngækf æwæ c{æpæp" { cpi " f æææo k' qngj " o wtk' " f k' æj æj " dko dæpi æpp{æ0'
Væo æj cp"r wæ."r gpi i wæææp"r gtækæp"o wæko gf kæ" f cræo "r go dgræctep"ætwæo æp{c"
f kælpæ"o gpi knæw'ukædwæ"o ævægræctæp" { cpi "o grækdævæ næp"uædwæqr kni' { cpi "æpæ{æni'ugr gtæk'
æqr kni' r gecj cp" { cpi "r græci æk'f cr cv' o go dæpw'o wtk'/o wtk' "r gpæf kæ næp"nj cu" o cucæj " "
r go dgræctep0' J æni' kæk' o gpæfæ k' dgæææpæp" ngr æf c" o wtk' " r gpæf kæ næp" nj cu" o cucæj " "
r go dgræctep'ngtæpc"o gtægnæ"o go r wæ{æk'ngæwæ næp'æpwæni'o gpætkæ c'æpr wæ" { cpi "æpæ{æni'
f cræo "æwæ"o cuc" f cræo "æqr kni' r gecj cp0' Qngj " ngtæpc" tægnædgæpwæni' æmpæqæni k' r gtækæp"
o wæko gf kæ" r go dgræctep" o co r w' o go dgtk' ngucp" r qukæh' ng" ævæu" r go dgræctep"

O cygo cvkm" dgdgter c" r gpi nalk' *Tc| cm| ("Tcj o cp."4239+"vgrj "o gplcrpncp"nalkcp"
vtj cf cr "r gpi i wpccpp{ c" f k'ugnqrcj 0"

Qngj " {cpi " f go kncp" r gpi nalk' wtw" o go dcpi wncp" Cr rkncuk' O qdkrg"
r go dgrclctcp" dgtcucuncp" r gto ckepcp" wpcwno go dcpw'bo wtkf "r gpf kf knep"nj cu'bo cucrcj "
r go dgrclctcp" wpcwno gpi wcuck'ngo cj kcp"o go dgrclct "f cp"o gp{ grguckncp"ngo cj kcp"
o cygo cvkn'vqr knlr gecj cp" MUO RM'f gpi cp" r gdlj "egr cv'f cp" r cpvcu0Cr rkncuk'bo qdkrg'kp"
r gpv'kpi "dci k'bo wtkf "r gpf kf knep"nj cu'bo cucrcj "r go dgrclctcp" hgtcpc'lc'ncp"o go dlo d'kpi "
o gtgn"o gp{ grguckncp"o cucrcj "vqr knlr gecj cp"o go cpf cpi ncp"vcj cr "nqi p'k'k'ho gtgn"
{cpi "t'gpf cj 0O gpwtw"J wulp"*423; + "o wtkf "f cr cv'bo gpi kpi cv'ugucw'r gtnetc" f ctkr cf c"
cr c" {cpi "f k'k'j cv'ugdcp{ cm'42" r gtcwu."52" r gtcwu" f ctkr cf c" cr c" {cpi "f kf gpi ct "f cp"82"
j kpi i c'92" r gtcwu" hci k'f ctkr cf c" k'p'vgtcmk'f k'ugn'k'k'k'pi "o gtgn0"

Kpk' o gpwplwncp" dcj cy c." o wtkf " o go gtnwncp" nqo r quk'k' dci k' cr c" {cpi "
f kf gpi ct." f k'k'j cv'f cp" {cpi " dgtncw' f k' ugnkct" o gtgn" dci k' o gpf cr cvncp" j cukl' f cp"
nghej co cp" {cpi " r gdlj " dgtngucp" vtj cf cr " uguw'w' r gtnetc" nj wuwup{ c" f crco " r tqugu"
r go dgrclctcp0Dcj cp" r gpi clctcp" {cpi "f kr gtugo dcj ncp" f crco " r gndci ck' dgpw'no gf kc"
ugr gt'k'v'gm." uwctc. 'lo gl. 'i tch'k'nf cp' lwi c' eplo cuk'ncp" f cr cv'bo gpctk'no k'pcv'bo wtkf "wpcwno"
vtwu" hqmwu" ugo cuc" r tqugu" r go dgrclctcp" f cp" r go wf cj ectcep" *Rf Re+" dgtncpi uwpi "
dgt dcpf kpi "dwmw'v'gm" {cpi " r gdlj " dgtuk'cv'ucv'k'no"

O gncw'k' cr rkncuk' o qdkrg' kpk' o wtkf "dqngj " dgrclct "f k' o cpc/o cpc" ucj clc" f gpi cp"
j cter cp" r go dgrclctcp" {cpi "f k'clct "f k'ugnqrcj "f cr cv'f kpi cv'kf gpi cp" dcln0Rgpi j cukrcp"
cr rkncuk' o qdkrg' kpk' v'k' cm'j cp{ c" o go dgtk' h'cgf cj "ngr cf c" o wtkf "ucj clc" o crj cp" i wtw
i wtw' r gpf kf knep"nj cu' lwi c'ncp"bo gtcuck' h'cgf cj p{ c0F gpi cp" cf cp{ c" cr rkncuk' o qdkrg' kpk"
kdw' dcr c." r gplci c" f cp" i wtw' v'k' cm' r gtn" dlo dcpi "v'gpvcpi "ncgf cj "wrcpi "nalk' o wtkf "f k"
two cj "ngt cpc" cr rkncuk' kpk' ncnp" dgt v'k'p' cm' ugdc' ck') wtw' f k' two cj "o go cpf cpi ncp" kc"

o gpi cpf wpi k'r cr ctep "cw f kq" f cp "xluwen" { cpi "o go dqngj ncp" o wtkf "o gpi wcp" "nclko"
Ugrclp "kw" i w w lwi c "dqngj "dgt w p f c m l u g d c i c k l h c u k r k c v q t " v g t j c f c r " o w t k f " u g o c u c " r t q u g u "
r g p i c l c t e p " f c p " r g o d g r c l c t e p " d g t n c p i u w p i 0 "

Rgp { c w c e p " b c u c n e j " d c i k h e l k e p " l p k f k r g t l g r u n e p " d g t u g t v e " f g p i c p " q d l g m k h h e l k e p . "
r g t u q n c p " n e l k e p . " j k r q v g u k u " n e l k e p . " n g r g p w p i c p " n e l k e p " f c p " d e v c u c p " n e l k e p 0 " F g h p k u k "
q r g t c u k " d c i k l u k r e j / k u k r e j " { c p i " f k i w p e n e p " f k f c r o " n e l k e p " l p k l w i c " w w w f l p { c v n e p " f k "
c n j k " d c d " l p k 0 "

304" Ncw t 'Dgnncpi 'Mclcp"

Rgo dgrclctep f cp Rgo wf cj ectcep "Rf Re + c d c f ' h g / 4 3 " b w r f k r g t n g p c m e p " f c r o " "
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o g t g r k u c u k n e p " t e p u h q t o c u k ' u k u g o " r g p f k f k n e p " f k ' O c r { u k c 0 " F c r o " r g r e p " l p k " r g r d c i c k "
i c t k u " r c p f w e p " v g r e j " f k d e p i w p n e p " o g p l c f k ' t w l w n e p " r e t c " r g p f k f k n i ' n j w u w p { c " w p w n l "
o g p l p i n e v n e p " h w c r k k ' r g o d g r c l c t e p " f k ' O c r { u k c " f c r o " r g r d c i c k ' c u r g n 0 "

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M w t k m w n o " U c p f c t f " U g n q r e j " T g p f c j " * M U U T + " U c p f c t f " U g n q r e j " O g p g p i c j " * M U U O + "
f c p " M w t k m w n o " U c p f c t f " U g n q r e j " O g p g p i c j " R g p f k f k n e p " M j c u " * M U U O R M 0 O c v g o c v k n l "
o g p l c f k ' c p w e t c " o c v e " r g r c l c t e p " { c p i " r g p w p i " f c p " l q m w u " f c r o " i g r q o d e p i " r g t w e o c " l p k f k "
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{ c p i " d g t n g u c p 0 " k p k ' c f c r e j " n g t e p c " o w t k f " o g o r g r e l c t k ' o c v g o c v k n l " u g e c t c " r g p i j c h e n p "
w p r c " n g h e j c o c p " * \ c d g w . " J c t v q p q " (" R w t k " 4 2 3 7 + 0 " R g e c j c p " o g t w r c n e p " v c l w n l ' r g p w p i "
f c r o " u k r d w u " m w t k m w n o " M U U O R M " n g t e p c " k " f c r c v " f k e r r k n e u k n e p " f c r o " n g j k f w r c p "
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n e l p / n e l p " r e i k { c p i " d g t j w d w p i n e k " f g p i c p " r g e c j c p " * M R O . " 4 2 3 ; + 0 "

F cico 'hwtkmwwo 'o cygo cvknr gtlpi nev'tgpf cj . 'o wtkf 'vgrnj 'o gpi j cdkunep 'o cuc" { cpi 'ico c'wpwnlo go r grclctk'napugr 'pqo dqt "dwrav'Qrgj 'kw.'o gtgnv'egpf gtupi 'wpwnl' o gpi i wpcnep'napugr 'pqo dqt "dwrav'ugo cuc' 'o gp { grgucknep'qr gtcuk'r gecj cp " *O qj co cf " P qtk cp" ("Mckrpk"4232="O qti g."4233+0J cn'kpk'o gpgtcpi nep' 'o gpi cr c' 'o wtkf "ugtupi " ner'k'o gpi cpi i cr 'r gecj cp "ugdci ckf wc'pqo dqt "dwrav' { cpi "vgr kuj 'f cp "dwrapp { c'ucw' mcpvkk' { cpi "o go dgpwn'ucw'r gecj cp " *Cdf wncj . "O cj o wf . "Lcrki" ("F cwf . "4238+0' Ugrckp'kw.'hckp'lw' c'b gpf cr cvk'b cmwf . 'o qf grif cp'uko dqn' { cpi "dkuc'f ki wpcnep'qrgj " o wtkf " ugo cuc" 'o gp { grgucknep'qr gtcuk' pqo dqt " dwrav' cnep" 'o gpi cpi i w' 'o wtkf " wpwnl' o go cj co k'napugr "r gecj cp " *O qj co cf " P qtk cp" ("Mckrpk"4232+0' F cico " napvgmi" o gp { grgucknep" 'o cucrcj " r gecj cp . "ngi ci cncp" 'o wtkf " 'o gpi wuck'napugr "cucu" r gecj cp " *r gpi gvcj wcp"napugr wcn' cncp" 'o go dgtkncp"ngucp" vgtj cf cr " r tgvucuk" 'o gtgnv' f cico " o grmncpcncp"qr gtcuk'r gpcv dcj cp . 'r gpqrcncp . 'r gpf ctcdcp'f cp' r go dcj ci kcp' r gecj cp " *r gpi gvcj wcp' r tqugf wcn' { cpi "o gp { gdcncp" 'o wtkf " wf cni'o kpcv'f gpi cp' r go dgrclctcp" r gecj cp " *Cdf wncj . "O cj o wf . "Lcrki" ("F cwf . "4238+0'

Vgtf cr cv' go r cv' nvgf cj " r gpi clctcp" { cpi " o gp { gdcncp" 'o wtkf " 'o gpi cico k' nguwncp " *o kunapugr uk' o go cj co k' f cp " wf cni' dgto kpcv' vgtj cf cr " r go dgrclctcp" r gecj cp . "ckw"i wtw'i ci cni'o go dlpc'r gpi gvcj wcp "dctw'f ctkr cf c' r gpi gvcj wcp "ugf kc"cf c" o wtkf . " " r gpi clctcp" { cpi " vgtwo r w' ngr cf c" j cncp" cvw' r'vj " wdk' qr gtcuk' r gecj cp " f ctkr cf c' 'o go cunknep' 'o wtkf " 'o go cj co k'napugr 'r gecj cp . 'i wtw'o go r gtnpcncp'uko dqn' cni gdtc'f cp' cni qtko c' r gecj cp "ugdgrwo "o go cunknep" 'o wtkf " 'o go cj co k' r gndci ck'cur gni' r gecj cp " { cpi "dgt dg| c'epwte'ucw'ucv c' hckp . 'f cp' r gpi clctcp" { cpi " j cp { c' 'o go hqmwncp" ngr cf c' napugr "ugdcj ci kcp' f ctkr cf c' r gpwj " *Ej ctcico dqwu . "F grncpg { . "J uw" ("O guc . " 4232="Cdf wncj . "O cj o wf . "Lcrki" ("F cwf . "4238+0'

Ugrk"cur gni'vgnpqm k'o cmwo cv."vgtf er cv'lwi c"nægf ej "næp" { cpi "f knælk" f cp" f kdkpepci næp" f cæo " r gpf kf knæp" cdcf " næ/430' Eqpvj " ugr gtvk" nægf ej " r go dgrælcetp" dgtcucunæp" r gto ckæp" *I co g/Dcugf/Ngctpkpi +" f cæo "o gplepc" nægo ej kæp" cdcf "næ/43" f cæo "nærcpi cp" o vtf 0' Mægf ej "kpk" vgræj "o gpf er cv' dcp { cni' r gtj cvæp" f ctk' i qmipi cp" r gp { gnf kni' f cp" r gpf kf kni' f ctk' næct" f cp" f cæo " pgi ctc0' Vgtf er cv' dcp { cni' nælkæp" { cpi " o gp { qmipi "nærcf c" nædgtngucæp" r gto ckæp" f cæo " r go dgrælcetp" f cæo "o gpgter næp" nægo ej kæp" cdcf "næ/43" f cæo "nærcpi cp" o vtf "f k'ugmærcj "o gpgpi ej 0J cuki'nælkæp" o gvc/ cperuku" vgtj cf er "4; "nælkæp" næp" { cpi "o gpucuctnæp" nægo ej kæp" cdcf "næ/43" ugdc i ck' j cuki' r go dgrælcetp" { cpi "f kænwnæp" qrgj "S kæp" f cp" Ercni' *4238+ "o gpecf cpi næp" r gpf gnæcp" r go dgrælcetp" dgtcucunæp" r gto ckæp" *I co g/Dcugf/Ngctpkpi +" rædlj " ghgmkh" f cæo " o go dæpi wæpæp" nægo ej kæp" cdcf "næ/43" f cæo "nærcpi cp" o vtf 0' Vgver k' r cf c" o cuc "næpk" eqtcni' r gpi clæpæp" ugmærcj "o gpgpi ej "f k' O cæ { ukæ" nædæp { cni' æpp { c" o cuki' " dgtr wævnæp" i wæf gpi cp" o gpi i wæpæp" r gtlæpæp" vgnpqm k' cæcu' t gpf ej "ugr gtvk" S T/ r kpmi' kpiæw gpv" r gecj cp" f cp" [qwVwdg. "f k' o cæc" co cæp" nævj " wdk' f cp" o gpi j chæni' r gwc" f cp" two wu" f kgnæpæp" f cæo " r go dgrælcetp" *MRO . '423; =Cdf wærcj . 'O wnj vct' ('Co tæp. "4242+0'

O gpwtw" I j cpk' f cp" Cj o cf " *4233+ " o vtf " nj cu" cæw' kuko gy c" o gtwæ cæp" ugmwo r wæpæp" o vtf " { cpi "o gpi knæwk' r tqi tæo " Rgpf kf knæp" Mj cu" kpvgi tæuk' f k' Ugmærcj " O gpgpi ej "Mædæpi uæcp" { cpi "f kæpepci "nj wæwu" wæwni' o go gpwj k' r gndci ck' nærcj gtwæpæp" nærcpi " wæc { c" f cp" o gpi cæo k' o cucærcj " r go dgrælcetp" f cp" wæcni' o go r wæp { ck' væj er " nædqrgj cp" { cpi " uco c" f gpi cp" o vtf " pæto cni' O gtgnæ " o go gtwæpæp" r gpf kf knæp" f cp" r gtnj kf o cæpæp" nj wæwu" dæi k' o go r gtnægo dæpi næp" r qvæpuk' f cp" nægo clæpæp" nærcf k' k' *Mj cu. " 4233+0' O gpwtw" Mærcni' Tæc| cni' f cp" kuo cni' *4242+ " o vtf " o cucærcj " r go dgrælcetp" wæcni' f er cv' o gpi gnæmæpæp" o cmwo cv' { cpi " f k' tqugu" dæi k' læpi næ " o cuc " { cpi " næo c" ugtæc" o go r tqugu" kpr wæ" r go dgrælcetp" f gpi cp" nærcf cæ " { cpi " rædlj " r gtnærcj cp" lknæ " f kæcæpæp kpi næp" f gpi cp" o vtf " pæto cni' Væo dæj cp. " o vtf " o cucærcj " r go dgrælcetp" o go r wæp { ck' o cucærcj "

f cmo "o go dgtk'hqmwu'ugr gpwj p{c'ngr cf c'ugvkr "r f r e"{ cpi "f kmwk'ugtvc'o gtgn'e'ngtcr "
o gteuc'dqucp"fc p'vkf cmlo kpcv'f gpi cp'r go dgrclctcp"{ cpi "o gtgn'e'kmwk'*Hqpi ."423: +0"

Rtqi tco " o wtkf " Rgpf kf knep" nj cu" o cucrj " r go dgrclctcp" o gtwlwnl' ngr cf c"
r gpi clctcp" { cpi " f ktgn'e" nj cu" dci k' o grgpi ner nep" ngr gtnwep" ugugqtcp" o wtkf " { cpi "
dgrclctcp"vcj cr "ngdqrgj cp"o grcnwk'ngo wf cj cp/ngo wf cj cp"nj wuwu'0Rtqugu'r gpi clctcp"
cf crj "dgt dgl c" dci k' o wtkf " { cpi "dgrclctcp"vcj cr "ngdqrgj cp'0' O wtkf "ngdqrgj cp"vpi i k"
{ cpi "o go r wp{c'r gpi gvcj wcp'ugf kc'cf c"{ cpi "mwvj 'vkf cmlo go gtnwep"dlo dlo cp'cvcw"
dcpwep" dgt dcpf lpi " o wtkf "ngdqrgj cp"tgpfcj " *Hqpi ."423: =Mcirk" Tc| crk" ("Kuo ckn"
4242+0'Rgtmetc" kpk" o gp{ gdcnep" o wtkf "o cucrj " r go dgrclctcp" o go r wp{ ck' o cucrj "
f cmo "o go r grclctk' O cvgo cvkn'nj wuwup{c'f cmo "vqr kn'r gecj cp" *Mj cu."4233+0'Rgecj cp"
dweprej " o cver grclctcp" { cpi " f lpi i cr " o wf cj " wpmw' f kr grclctk' f cp" o wf cj " wpmw'
f krcj co k' *MRO ." 423; =Cdf wrj ." O wnj vt" ("Co tcp." 4242+0' Mgdep{ cmep" i wtw'
O cvgo cvkn'vkf cmlo go dgtk'r gtj cvkcp" ngr cf c" o wtkf /o wtkf "o gpi kmw'ngdqrgj cp" o culpi /
o culpi "f cp"mwtepi "o go dgtk'r gtj cvkcp" ngr cf c" o wtkf "ngdqrgj cp"tgpfcj "f k' o cpc" i wtw'
ngdj "egpf gtwpi "wpmw' o gplwtwu' ngr cf c" o wtkf "ngdqrgj cp"vpi i k' *Mj cu."4233=MRO ." 423; +0'

Qrgj " { cpi " f go knep" r gpi i wpcp" r go dgrclctcp" cr rknep" o qdkrg" dgtcucunep"
r gto ckcp" f cmo "r gpf kf knep" cncp" f cr cv' o gpctkn'lo kpcv'f cp" o go dgtk' o qvxcuk' f cmo "
r gpi clctcp" f cp" r go dgrclctcp" *Gr' O cy cu." Dtcw" Ectco cp" ("O wpgcp" 423; =MRO ." 423;
=Cdf wrj ." O wnj vt" ("Co tcp." 4242+0' Rgrdci ck' nelp" o grer qtnep" dcj cy c"
j wdwi cp" uki pkknep" cpwte" o go r gtnpncmep" wpuw" cr rknep" o qdkrg" r gto ckcp" f cmo "
r go dgrclctcp" o gplpi nwnep" o qvxcuk" o wtkf " *Mqkkuq" ("J co ctk" 423; =Cdf wrj ." O wnj vt"
("Co tcp." 4242+0' Qrgj "ugcd'kw' i wtw' o go ckncp' r gtcpcp" { cpi "r gplpi "wpmw'
o gpi knu" r cpi cp" pgi cvh' r etc" o wtkf "vtj cf cr " o cver grclctcp" O cvgo cvkn' dgtw' "

f ctk'r gtpi ncv'ugnuj "tgpf cj "ng'ugnuj "o gpgpi cj "MRO ."423; #0Cr rknuk'O qdkg"
{ cpi "f ki wpcnep"j ctwucj "dgtuguwckp" f cp"kpvtcmkh"uwr c{c" f er cv'o gplcpc"r go knkcp"
ntgcwh" o wtkf " ugvgtwup{c" o go dcpw" f crco " o gtpi ncvnep" r gp{grguckcp" o cucnj "
o cvgo cvkn\qr knr gecj cp"ugectc"ntgcwh"Cdf wncj ."O wnj wt"('Co tcp."4242-0

Mgcf ccp"kp"o gplcf knep" wlvcp" Rf Re" r gecj cp" wf cni' vgtcr ck' er cdkr"
r gpi clctcp"j cp{c"o gpgncpnep"cur gm'xgtden'ngtpe"nupugr "r gecj cp"{cpi "cdutcmf cp"
ngo cj kcp"r gecj cp"wf cni' f er cv'f knupntknep"j cp{c" f gpi cp"o gpi i wpcnep" xgtden'f cp"
i tchkn'cdutcmf vpr c"uqnpj cp"dko dkpi cp"cvw'dcpwcp"*O qj co cf "P qt k cp"('Mckcpk"
4232-0'Rgrncpccp'Rf Re"o grnk'cr rknuk'o qdkg."o go dqrgj nep"o wtkf "dgrlct'r gecj cp"
f ko cpc/o cpc'ucj clc" f gpi cp"j cter cp"r go dgrlctcp"{cpi "f kclct'f kugnuj " f er cv'f kpi cvk"
f gpi cp"dkn0Rgpi j cukcp"r go dgrlctcp"r gto ckpcp"o grnk'cr rknuk'o qdkg"wf cni' cp{c"
o go dgtk'hcgf cj "ngr cf c"o wtkf "ucj clc"o crej cp"i wtw' i wtw'r gpf kf knep"nj cu"lwi c"cnep"
o gtcuck'hcgf cj p{c"*Cdf wncj ."O wnj wt"('Co tcp."4242-0" F gpi cp"o gplcpcpnep"Rf Re"
dci k'qr knr gecj cp"o grnk'cr rknuk'o qdkg"kp'kdw'der c."r gplci c" f cp"i wtw'wf cni' gtrw"
dko dcpi "vpcpi "necf cj "wrcpi "nck'o wtkf "f k'two cj "ngtpe"cr rknuk'kp'cncp" dgtv'p'cni'
ugdei ck'i wtw'f k'two cj "o go cpf cpi nep'lc"o gpi cpf wpi k'r er cter"cvf kq" f cp"xkweni" {cpi "
o go dqrgj nep" o wtkf " o gpi wrcpi " nck" f cp" o gpf er cvnep" dko dkpi cp" cvw' dcpwcp"
f ctk' cf c"uqnpj cp"o cmwo "dcru0

305" Rgp{cvcep'O cucnj "

Rgecj cp"o gtwr cnep"cpvctc"nupugr "{cpi "r gtpi "f crco "o cvgo cvkn'pco wp"wtw"
f kpi i cr "ugdei ck'cpvctc"vqr kni" {cpi "uwnct" f cp"wf cni' f ko kpcv'qrgj "ugdej ci kcp" dguet"
o wtkf "ugnuj 0J cni'kp'kdqrgj "f knpncr'r cuk'o grnk'f er cvcp"nckcp/nckcp"rgr cu" {cpi "
o gtwo wuncp"dcj cy c'tco ck'o wtkf "o gpi j cf er k'nguwncp"o gpi go dcpi nep'kf gc"wpwni"
o gp{grgucknep"o cucnj "o cvgo cvkn" {cpi "o grkdcnep"r gecj cp"*Cdf wncj ."O cj o wf ."Lckn'

('F cwf .4238+ 'o gpi wcuck'napugr 'r gecj cp' { cpi 'hgdj 'two k'ugr gt'k'napugr 'eni qtkj o c' f cp'eni gdtc" *Lqj ct" ("\ cnetk .4237= Mj cu.4233= O qti g.4233= O qj co cf "P qtq cp" (" Mckrpk'4232+0F KO cr { uk'ugdcj ci kcp" o wtkf "o gpi j cf cr k'o cucrj " r go dgrclctcp "vq r kn' r gecj cp"uglcn'ugnrj "tgpfcj "rci k' *MRO .423; =Crkdrk' ("Uk pg{ .4237+0"

Fk' O cr { uk' ugdcj ci kcp" o wtkf " o gpi j cf cr k' o cucrj " r go dgrclctcp" vq r kn' r gecj cp"uglcn'ugnrj "tgpfcj "rci k' *MRO .423; =Crkdrk' ("Uk pg{ .4237+0' Rgecj cp" o gtwr cnep"napugr "cucu"o cvgo cvkn'ugnr cu"o wtkf "o go r grclctk'pgo dqt "dwr v" *Ukrkdw" O cr { uk' MUUT "Vcj wp"5+0'Rgtcrkj cp" fctkr cf c'pgo dqt "dwr v'ngr cf c' r gecj cp" o go dcy c" dcp { cn'lo cucrj "ngr cf c"o wtkf 0'Rgtwdcj cp" { cpi "dgtcrnw'kp'k'o gp { gdcdrp"o wtkf "ngrk w" f gpi cp" r gpvchukcp" r gecj cp" f ko cpc" o wtkf "o cukj " o gpgtko c" pkrk' uguwcv" r gecj cp" cf crj "uco c'ugr gt'k'pgo dqt "dwr v" *Mgo gpvgtkcp" Rgpfk knep" O cr { uk' .4237=Crkdrk' (" Uk pg{ .4237+0'Ukwuk' { cpi "uco c'f kwplwncp"qrgj "o wtkf /o wtkf "ugnrj "o gpgpi cj "fk" O cr { uk' f ko cpc" r gpeerc kcp" o gtgnc" f crco "vq r kn' r gecj cp" ugo cnk' o gtquqv" *Kt ku' (" P etc { cpcp .4233=Crkdrk' ("Uk pg{ .4237+0"

Vq r kn'Rgecj cp" o go r wp { ck' r gpvgtlgo cj cp" { cpi "dgtcrkpcp" f cp" vk' cn'lo gy cnkrk' lwo rj " o wrn' ugdcj clo cpc" pgo dqt "dwr v" *Uco cj . " P qtdcp { (" Ucj ctwf kp .4238+0' Dgtf cuctnep"nckcp" Lqj ct "f cp "\ cnetk " *4237+ 'o gpi gpck' r go cj co cp"napugr "r gecj cp" vgrj "o gpf cr cvk' dcj cy c"ngdcp { cnep" o wtkf " { cpi "dgtwo wt"34"vcj wp" j kpi i c"37"vcj wp" j cp { c'f cr cv"o gpi j chn' r gtcwtecp"napugr "r gecj cp"wpwn'lo gp { grgucknep"o cucrj " { cpi " f kngo wrncp"vcpr c"o gp { gftk' uco c'cf c"napugr "r gecj cp" { cpi "f lcr rknucnep"kw'dgwai cvw"vk' cn'0'kp'k'o gplgruncp"dcj cy c"nghcj co cp" o wtkf "j cp { c"ugectc"lpustwo gpvci'f cp" vk' cn'ugectc"tcukqpcn'kckw"o gtgnc"j cp { c"vcj w"o gpi j chn' r gtcwtecp" { cpi "dgtngpccp" vcpr c"o go cj co kncpi uwpi "napugr "r gecj cp" { cpi "ugdgpct0"

Cpckuku'nckcp'vgtj cf cr 'r cpf cpi cp'i vtw'vgtj cf cr 'vqr knlr gecj cp'vgrcj 'o go dgtk' wo r wcp'ngr cf c'lgpku'ngucrcj cp" { cpi "f kcmwncp"qrgj "o wtkf "ugo cuc"o gp{ grguckncp" o cucrcj " r gecj cp" o gpf cr cvk' ugdcj ci kcp" dguct" ngucrcj cp" { cpi "f kcmwncp" cf crcj " ngucrcj cp"ukugo cvkm'kckw'dgtdgpwn'o kunupugr uk'r gecj cp"*C| k cp"("Kltcj ko ."4234=" J cnko ."4237+."ugrcp"f ctkr cf c"ngucrcj cp"ewck'f cp"tcy cm"*Ktku"("P ctc{ cpcp."4233=" J cnko ."4237+0' Cpvtc"eqpvaj "o kunupugr uk'r gecj cp" { cpi "f kngpcn'r cuvk'qrgj "nckcp/ nckcp" vgtf cj waw' kcrj = "c+" o gpco dcj ncp" r gp{gdw" f gpi cp" r gp{gdw." r gpi cpi nc" f gpi cp"r gpi cpi nc"ugo cuc"r tqugu'r gpco dcj cp"r gecj cp"*Cdf wrcj ."O cj o wf ."Lcrkl"(" F cwf ." 4238+." *d+" o wtkf " o gpi i wpcncp" nupugr " pqo dqt" dwrcv' { cpi " ucrcj " cr cdkr" o go cj co k'r gecj cp."eqpvaj p{ c"o wtkf "o gpicy cd"3 l6"ngdkj "ngekl'f ctkr cf c"3 l8"ngtccp" o gtgnr"o go dcpf kpi ncp"pqo dqt"6"cf crcj "ngdkj "ngekl'f ctkr cf c"pqo dqt"8"*C| k cp"(" Kltcj ko ."4234="P co mwpi "("Hwej u.4238="Cdf wrcj ."O cj o wf ."Lcrkl"("F cwf ."4238+" ugdgpctp{ c"3 l6"ngdkj "dguct"f ctkr cf c"3 l8"f crco "nupugr "r gecj cp."f cp"*e+"o go dgpwni' cpcnqi k' { cpi " ucrcj " ugo cuc" o gpco dcj " f cp" o gpqrcm' r gecj cp" ngtccp" o gtgnr" o gpi cpi i cr "nupugr "r gpco dcj cp"f cp'r gpqrcncp"r gecj cp"cf crcj "uco c"f gpi cp'nupugr " r gpf ctdcp'r gecj cp"*P qj "("Tquk"4242+0'

Ucw'kuw'mtkncn'dgtngpccp"ngi ci crcp"o wtkf "o gpi wcuck'vqr knlr gecj cp"krj " o gtgnr"i ci cnb gpf cr cvr gpecr ckcp"{ cpi "ego gtrpi 'f crco 'r gr gtkmccp'y crwr wp'vqr knl' r gecj cp'vgrcj 'f kclct"o gpi i wpcncp'vgnpqmi k'r gtlukcp'ctcu'tgpf cj "ugr gtvk'r qy gt"r qlpv." [qwVwdg."o qwpvki dqctf "i co det"i tchkn'f k'ugnrcj ."o gtgnr"o culj "nci k'o gpi j cf cr k' nguwncp" o gp{grguckncp" o cucrcj " r gecj cp" r cf c" r gtlpi ncv' o gpgpi cj " *Ktku" (" P ctc{ cpcp." 4233=" P qj " (" Tquk" 4242+0' J cn' kpk' o gpi gucj ncp" dcj cy c" r gecj cp" o gtwr cnep"cpvtc"vqr knlb cvgo cvkl' cpi "kf cnlf ko kpcvk'f cp'uwncr'f kr grcletk'qrgj "o wtkf " r cf c"r gndci ckr gtlpi ncv'r go dgrcletcp"*Ucty cf k'("Ucj tkn"4236="J cnko ."4237+0"

Hgpqo gpc" { cpi "uco c'wtw'f kngpcn'r cuk'f cmo "nalkcp" dgtngpcep" r go dgrclctep" r gecj cp" f k' O cnc { ukc' Cpvtc" kuw" { cpi " r ctkpi " wco c" krcj " nrgf cj " r gpi clctep" f cp" r go dgrclctep" *R(R+r gecj cp" r gdlj " o gpi i cncncp" o wtkf " wpcwn' o gpi j chcn' r gtcwctep" o grncpcncp" qr gtcuk' r gecj cp" f gpi cp" o grncncp" r wlkj " wdk' o cucrcj " r gecj cp. " vpr c" o go cukncp" o wtkf " vrcj " o gpi wcuck' ugr gpwj p { c" nupugr " cucu" r gecj cp" *Hctk' cj " (" Hgtf kcpk" 423: +0' O wtkf / o wtkf " o cucrcj " r go dgrclctep" { cpi " o gpi knwk' ngrcu" MUUO RM" r gtnw" o go r grclctk' ugdc p { cm' ; " uwd" vqr kn' r gecj cp" o gpi knw' uwnvcp" dwnw' vgm' O cvgo cvkn' MUUO RM' vki ncvp" 3" { cpi " f kngncncp" r cf c' vj wp" 4239. " vki ncvp" 4" r cf c' vj wp" 423: " f cp" vki ncvp" 5" r cf c' vj wp" 423; " { cpi " o wrc' f k' gtnpcncp" f cmo " Rgrcp" Rgo dcpi i wpcp" Rgpf kf knep" O cnc { ukc' *RRRO +4235/4247' f gpi cp' dgthqmw' hgr cf c' dwnw' vgm' f cp" vgm' pmi k' ctcu' tgp' f cj " ucj clc" *Hctk' cj " (" Hgtf kcpk" 423: =Kctj ko . " 423; +0'

Mcgf' cj " kpk" o gpi gj cf ncp" ngwrc { ccp" o wtkf " r gpf kf knep" nj cu" o cucrcj " r go dgrclctep" wpcwn' dgthknt " o gp { grguckncp" o cucrcj " o cvgo cvkn' nj cup { c" f cmo " vqr kn' r gecj cp" MUUO RM' ngtcpc" i wtw' vk' cm' o gpi i cncncp" o wtkf " o gpi grncncp" f cp" o gpi go dcpi ncp' kf gc/ kf gc' b' gtgnr' ugpf ktk' O cmo " uqrcp" { cpi " o grkdcncp" r gp { grguckcp" o cucrcj . " o wtkf " f clctep" wpcwn' o gpi j chcn' f cp" o gpi kpi cvk' ncv " nwpck" { cpi " f kdgtkncp" f cmo " uqrcp" wpcwn' o gpectk' lcy cr cp' O' Mcgf' cj " kpk" j cp { c" dqrgj " f ki wpcncp" cr cdkt " o gp { grguckncp" o cucrcj " twkp' O Rgpi gvcj wcp" o wtkf " o gplcf k' vgtj cf " f k' o cpc" b' gtgnr' cncp" o gpi cmo k' o cucrcj " cr cdkt " o grkdcncp" uqrcp" dwnep" twkp" { cpi " o gpi gj gpf cnk' o wtkf " wpcwn' dgthknt " ugectc" nt kkn' f cp" nt gc' kh' ugtv " o go r wp { ck' r grnci ck' nrgf cj " f cmo " o gpf cr cvncp" r gp { grguckcp' O' Mcgf' cj " r gpi clctep" { cpi " ugfk " f ki wpcncp" f cmo " r go dgrclctep" vk' cm' o gpi i cncncp" r gpkpi ncvp" ngo cj kcp" dgthknt " ugugqtcp' i " cr cnci k' o gpkpi ncvncp" ngo cj kcp" dgthknt " nt gc' kh' *Dcj ci kcp' Rgpf kf knep" Mj cu. " 4233 +0'

F er cvep" f etkr cf c" ngr wwuwp" wlkcp" r gtvgpi cj cp. " wlkcp" cnj kt" vej wp" f cp" wlkcp"
f kci pquvkn' { cpi " f klcrcpncp" qrgj " r gp { grkf kn' f k' f wc" dwej " ugnqrcj " o gp gpi cj " kpgi tcuk"
Rgpf kf knep" nj cu' ugnkct " f cgtcj " nkpvc' ugrncvp " f k' Rgtcm' { cpi " o grkdcvncp " 52 " qtcpi " o wtkf "
o gpf cr cvk' dcj cy c " o wtkf " o cucrcj " r go dgrclctcp " o gpi j cf cr k' o kunqpuqr uk' dgtncckcp "
nqpuqr " cdutcmf cp " ngo cj kcp " r gecj cp " ugrgr cu " o gplcrpk' Rf Re " o gpi i wpcncp " nngf cj "
r go dgrclctcp " ctcu " tgpfcj " ugr gtvk' S T / rkpni' kput wo gpv " r gecj cp " f cp " [qw' Vwdg " f cp "
o gpwplwncp " ngr wwuwp " o go dgtcpi ucpi ncp " kckw' o gpi cr rkncukncp " nqpuqr " pqo dqt "
dwrcv' dci k' r gtdepcf kpi cp " r gecj cp " *43' " o wtkf + " o kunqpuqr uk' eni gdtc " f cp " eni qtko c "
*54' " o wtkf + " j wdwp i cp " dcj ci kcp " ngugnwtwj cp " *47' " o wtkf + " f cp " ngrgo cj cp "
r go kpf cj cp " r go dgrclctcp " ngr cf c " ukwucuk' dctw *44' " o wtkf + 00 cpcncrc " ngr wwuwp " wlkcp "
r gtvgpi cj cp " f cp " cnj kt " vej wp " { cpi " o go hqmwu " ngr cf c " vqr kn' r gecj cp " o gpi i co dctncp "
dcj cy c " o wtkf " dgrwo " rci k' o gpi nqpuqr wmlungo c " r gecj cp " f kugdcdmcp " r gpi gvcj wcp " ugf kc "
cf c " o wtkf " dgrwo " b gpewnw kf cp " ugnrci wu' nqpuqr " cdutcmf cp " ngo cj kcp " r gecj cp " kf cmf "
f cr cv' f knqpnckncp " wpwni' o go dlpc " r gpi gvcj wcp " dctw' vgtj cf cr " nqpuqr " r gecj cp "
O cpcncrc. " o gpwtw' nckcp " Co kp " f cp " [culp " *4238+ " vej cr " r gpi cwccp " o wtkf " o cucrcj "
r go dgrclctcp " f crco " ugdkrpi cp " uwdlgn' wco c " ugr gtvk' o cvgo cvkn' vgrcj " o gp { wncncp "
o wtkf " o cucrcj " r go dgrclctcp " f kpmwukncp " f crco " r tqi tco " r gpf kf knep " kpmwuk' 0Cpvtc "
hcmqt " { cpi " o gp { wo dcpi " ngr cf c " ngo gtquqcp " r gpecr ckcp " o wtkf " o cucrcj "
r go dgrclctcp " f crco " uwdlgn' o cvgo cvkn' krcj " vqr kn' vqr kn' { cpi " uwnc " f kpcrkuku " qrgj "
o wtkf " ugr gtvk' vqr kn' r gecj cp " *Co kp " ([culp. " 4238 = Hctkf cj " (" Hgtf kcpk " 423: + 0'

Wpwni' r gpi wcccp " nqpuqr " f cp " o gpi wnwj ncp " r go cj co cp " r gecj cp " ugnrci' i wu "
o gpkpi ncvncp " r gpecr ckcp " o wtkf " f crco " r gecj cp. " r go dgrclctcp " dgtcucuncp " r gto ckpcp "
f kklj cvlugdc i ck' nngf cj " { cpi " dgthqmwu' f cp " r gtnw' f ki wpcncp " dci k' o gpecr ck' qdlgmkh' { cpi "
kpi kp " f kccr ck' o grncw' r gpi i wpccep " i tchkn' f crco " r gtkulcp " r gpf kf knep " 0' Mgdc { cmncp "
r gtkulcp " { cpi " f ki wpcncp " f crco " Rf Re " nkp " mwtcpi " o go dgtcpi ucpi ncp " wpwni' "

o gpkpi ncvnep"o kpcv'f cp"r gpecr ckcp"o wtkf "C| k cp."4237="Kktcj ko ."423; +0'O gpwtw'
nalkcp"Vcpi mwk'f cp"Mcqpi "4242+."vgrcj "o gpi i wpcnep"i tchkn'kckw'F ki kcn'O kgetch'
wpwni'o go dcpw'o gpi nupntkncp"nupugr "cdutcm'f cp"ngo cj kcp"r gecj cp0"P co wp"
dgi kw."i tchkn'f cpi "f ki wpcnep"o gtwr cnep"i tchkn'cdutcm'f cp"dwncp"i tchkn'cwgpvkn'f k"
o cpc"kp'k'o go dgtk'nguwnetcp"ngr cf c"o wtkf "ngdqngj cp"tgpf cj "wpwni'o gpvgtlgo cj "
uguwew'nupugr "{ cpi "cdutcm'f cncp "r go dgrclctcp"r gecj cp0'O cpcncnc" f cncp "nalkcp"
C| k cp"4237+."vgrcj "o gpi i wpcnep"i tchkn'cwgpvkn'f cncp "r gpi clctcp"r gecj cp"f k'o cpc"
r gtkucp"i tchkn'kRgecj cp"kp'o grkdcncp"o wtkf "ugectc" dgtngucp" f cncp "r go dgrclctcp"
r gecj cp0' F cr cvcp" nalkcp" o gpwplwncp" dcj cy c" r gpi i wpcp" i tchkn' cwgpvkn' f cr cv"
o go dcpw'o gpi nupntkncp"nupugr "{ cpi "cdutcm'ugtvc"ngo cj kcp" { cpi "uwnet"wpwni'
f kmvcuck'dgtcpcf kpi "r gpi i wpcp"i tchkn'cdutcm'0'Rgpi clctcp"ugectc"vcf kukqpcn'f k' cr cvk"
vk'cni' o go cf ck' dci k' o go dcpw' o gpi nupntkncp" nupugr " cdutcm' f cp" ngo cj kcp"
r gecj cp0' O wtkf " o go gtnwncp" r gtkucp" cvw" dcpwep" cr rkncuk" { cpi " dgtngucp" wpwni'
o go dko dlpi " o gtgnc" o gpi nupntkncp" nupugr " f cp" ngo cj kcp" r gecj cp" ugtvc"
o gpi nuputwnlungo c'r go dgrclctcp"*Tqun' ('Mj crkf ."4239="C| k cp."4237-0'

"F ctk' ugi k' r gf ci qi k" r gtngc dcp' cp" r gtkucp" r gpf kf kncp" nkpk' o go gtnwncp"
utcvgi k'r gpi clctcp" { cpi "ngdlj "o gpkkn'dgtcncp"r gpi rkdcncp"o wtkf "f ctk'r gndci ck'vcj cr "
ngdqngj cp"ugtvc"o gp { gf kncp"nqo r qpgp" dcpwep"cvw'uqnap' cp"dci k'o wtkf "ngdqngj cp"
tgpf cj "Ej gp."4239-0'Rgtkucp"r gpf kf kncp"r gtnw'f ktgnc" dgpwni'f gpi cp"o gpi i wpcnep"
nqo r qpgp/nqo r qpgp" r gtgncp" { cpi "cncp" o go dcpw' o wtkf " o gpi nuputwn' ungo c"
r go dgrclctcp" { cpi "dgwn'ugnerki wu'f cr cv"o gpkpi ncvnep"r gpecr ckcp" f cp"o kpcv'o wtkf 0'
Vgtf cr cv'dgdgter c"nqo r qpgp" r gtgncp" { cpi "f ki wpcnep" f cncp "nalkcp"vgtf cj ww'ugr gtvk"
o qf gn' xgtden" r kmqtken' cwgpvkn' " *O c { gt" f cp" O qtgpq." 3; ; : +." cmkxkk" r gpegtkccp"
cwgpvkn'I tggp'f cp"Go gtuqp."422: +."nqo r qpgp'uqnap' cp"*Uc { g'f cp"Dt wuj ."4224+'kckw"
o cncp "dcncu'f cp"r gpi i gtcn'r gplgrucp"ugpf k'k"r gpi cmkncp"r gpi gvcj wcp"ugf k"cf c"

*Y cpi ." J cgtvgn' f cp" Y cndgti ." 3; ; 5=" Erctm" 422: +" f cp" vgnpkn' egdkucp" *Ej wpmkpi +"
*O kngt." 3; ; 6+" f ki wpcnep" qngj " r gpi ncl'k' vgtf cj waw' wpmw' o go dcp' wpcnep" r gtlkucp"
r gpf kf knep" vgr k'r gpi ncl'k' vgtf cj waw' kf cml' o gpi i wpcnep" ngugo we" uqnap' cp" r gtgnep"
{ cpi " f kp { c wpcnep }

Vgtf er cv' r gndci ck' ngmtepi cp" f cp" dcp { cml' nrgo cj cp" dguct " vgtwco cp { c " f ctk'
ugi k' uqnap' cp" r gtgnep" ngtcpc" r gpi ncl'k' vgtf cj waw' kf cml' o gpi i cdwpi nep" uqnap' cp/
uqnap' cp" r gtgnep" vgtugdw' f cp" kf cml' o gpi co dkn' nktc" ngr gtnep" o wtkf " dgt dgl c" vj cr "
ngdqngj cp" f cno " r go dcp' wpcp' r gtlkucp' r gpf kf knep" dgt dgpwn' r vj " wdkf cp' r gto clpcp'
Mqo r qukuk' nqo r qpgp" r gtgnep." kkw' o qf gn' xgtden" r kmqtken' cwgpvkm" cmkxk'
r gpegtkccp" cwgpvkm" hcmqt " uqnap' cp" ugr gt' k' o cmwo " dcr' u' f cp" r gpi i gten' r gplgrucp"
ugpf k' k' r gpi cmkcp" r gpi gvcj wcp" ugf kc" cf c " f cp" vgnpkn' egdkucp" *Ej wpmkpi +" f knep"
f cr cv' o gpi nupntknep" nupgr " { cpi " cdutcm' ugtc" dgtr qvpu' k' o gtcpcpi " nqi pkh' o wtkf "
wpmw' o gpi nuputwn' ungo c" r go dgrcltcp" ngpf k' k' dgt dcp' f pi " r gpi i wpcp" vgnpqrqi k'
ctcu' t gpf cj " f cp" i tch' m' cdutcm' *C | k cp. " 4237+0

Ugectc " kf cml' nepi uwpi " wo r wcp" ncl'kcp " k' k' vgtj cf cr " cr rkn' uk' o qf " r go dgrcltcp"
{ cpi " f kuqnap' " qngj " nqo r qukuk' ugo we" nqo r qpgp" r gtgnep" { cpi " uguwck' f gpi cp"
ngr gtnep" r go dgrcltcp" kkw' nupgr " cdutcm' f cp" ngo cj kcp" r gecj cp." lwtcpi "
r go dgrcltcp" r gecj cp" f cp" ngdqngj cp" o wtkf " f cr cv' o go dcpw' o gpi nupntknep" nupgr "
cdutcm' f cp" ngo cj kcp" r gecj cp" ugn' rki wu' f cr cv' o gpi nuputwn' ungo c" { cpi " dgwn' dci k'
o wtkf " ugectc " wo wo " ugvgt wup { c " o gpl' pi n' wpcp" r gpecr ckcp" f cp" o kpcv' o wtkf 0"

Mcl'kcp" { cpi " f kcmwpcp" qngj " J cwuo cpp. " XcpNgj p. " P qng' u' f cp" I gtuj o cpp"
*423; +" o gpf cr cv' k' hcmqt " uqnap' cp. " kkw' r gpi i gten' r gplgrucp" ugpf k' k' o go dgt' k' ucl' "
ngucp" *f " ? " 3029+ { cpi " dguct " vgtj cf cr " r gp { grguckcp" o cucrj " r go dgrcltcp" k' k' dgt o cnpc"
r gpi i gten' r gplgrucp" ugpf k' k' o gtwr cnep" hcmqt " { cpi " r gp' kpi " f cno " o go dcpw' o wtkf "

f cmo "r go dgrcletcp0'Mcllcp" { cpi "f krcnwncp" qrgj NkpC vnkpuqp. "Ucxgp { g" f cp "P gnuqp"
*4238+. "dgtncckcp" r gpi i gtcn'r gplgrucup "ugpf k'k' f cmo "o go r grcletk'cni gdtc" o gpf cr c'k'
r gpi i gtcn' r gplgrucup " ugpf k'k' o go dgtk' ngucp" ngr cf c" o wtkf " ngdqrgj cp" tgpfcj "
dgtdcpf kpi "o wtkf "ngdqrgj cp" \kpi i k'Vgxcr k'ncclcp "kpkf krcnwncp" ng"cvcu"vqr kn'cni gdtc "f k'
o cpc"ectc" r gpi clctcp "cni gdtc "f cp" r gecj cp "cf crj "dgt dgl c0'Qrgj "kw. "ncllcp "kpk'cncp"
o gpi cr rkncukncp" r gpi i wpccp" r gpi i gtcn' r gplgrucup " ugpf k'k' f cmo " cr rkncuk" o qdkrg"
r gto ckpcp" r gpf kf knep "R/MUO RM"vqr kn'r gecj cp "vtj cf cr "o wtkf "dgt dgl c"ngdqrgj cp0'

Lxwgtw. "ncllcp "kpk'r gpvkpi "wpwnio grlj cv'nghwpi ulccp" o qf "r gtlukcp" r gto ckpcp"
r gpf kf knep "R/MUO RM" u" f gpi cp" r gpi i gtcn' r gplgrucup " ugpf k'k' { cpi "f k'gnc" dgpwni"
f gpi cp" o gpi i cdwpi ncp" ugo wc'huo r qpgp" r gtgnccp" { cpi "cncp" o go dgtkncp" ngucp" { cpi "
ngdlj "dckn'vtj cf cr "r gpecr ckcp" f cp" o kpcv' o wtkf "dgt dgl c"vej cr "ngdqrgj cp" dgtdcpf kpi "
f gpi cp" o qf "r gtlukcp" r gpf kf knep "dgtckncp" r gtlukcp "rcvj "wdk'f ctk' MRO "kckw" S T/ rkpni'
kpiut wo gpv" r gecj cp "f cp" [qwVwdg. " { cpi "j cp { c" o gpi i cdwpi ncp" uqnuqi cp" r gtgnccp"
o qf grlxgtdcn" r knqtkcn'cdutcnif cp" o cmwo "dcrcu" f cmo "Rf Re" r gecj cp0'

36" QdlgmklMcllcp"

Dgtvgtcuncp" ngr cf c" nguwncp" *o kunqpuqr uk+ f cp "vkf cni' o kpcv' o wtkf "dgt o cucrcj "
r go dgrcletcp" o gpi wcuck' vqr kn' r gecj cp" f cp" ngo co r wcp" r go dgrcletcp" r gecj cp"
o grcnk'vgnpqmji k'ctcu' tgpfcj "vgrj "o gtcpi ucpi ncp" ncllcp "kpkf krcncpncp0Hqmwu' r gpvkpi "
ncllcp "kpk'cf crj "wpwnio go c'ukncp" nqo r qpgp" r gtgnccp" f cp" nghwpi ulcp" r gpf gnccp"
r go dgrcletcp" cr rkncuk' o qdkrg" r gto ckpcp" r gpf kf knep" Rgecj cp" MUO RM" f gpi cp"
r gpi i gtcn' r gplgrucup " ugpf k'k' *R/MUO RM" u+ f cp" S T/ rkpni' kpiut wo gpv" r gecj cp "f cp"
[qwVwdg. "kckw" r gtlukcp "hwtuwu" dwnw' vgm" MRO "r gecj cp" MUO RM" f cmo "r go dgrcletcp"
f cp" r go wf cj ectccp" *Rf Re+ r gecj cp "f k' ugnqrcj " o gpipi cj "f ctk' cur gni' r gpecr ckcp" f cp"

o kpcv'o wtkf 0Ugectc'ur gukknk {c."qdlgmkh'hællcp'lpk'cf crj 'wpwmm'

- c+ O go dcpj wpcnp" cr rknæk" o qdkg" r gto ckpcp" r gpf kf knæp" R/MUO RM' wpwmm
o wtkf "o cucrj "r go dgrælcetp"Vlpi nævcp"3"j kpi i c"Vlpi nævcp"50
- d+ O gpi gpcrr cuk" r gtdg| ccp" cpvctc" r gpi i wpccp" cr rknæk" o qdkg" r gto ckpcp
r gpf kf knæp"R/MUO RM"f cp" o qf "r go dgrælcetp"r gtlukcp"ævkj "wdk'S T/rkpm
kput wo gpv't gecj cp"f cp"[qw'Vwdg"vgtj cf cr "r gpecr ckcp"r gecj cp"o wtkf 0
- e+ O gpi gpcrr cuk" r gtdg| ccp" r cf c" r gpecr ckcp" r gecj cp" dci k' o wtkf " f gpi cp
ngdqrgj cp"vpi i k' {cpi "o gpi i wpcnp"R/MUO RM"f gpi cp"r gplgræucp"ugpf kk
f cp"vgnpqmji k'ctcu'tgpf cj "S T/rkpm'kput wo gp"r gecj cp"f cp"[qw'Vwdg0
- f+ O gpi gpcrr cuk" r gtdg| ccp" r cf c" r gpecr ckcp" r gecj cp" dci k' o wtkf " f gpi cp
ngdqrgj cp"tgpfcj "{cpi "o gpi i wpcnp"R/MUO RM"f gpi cp"r gplgræucp"ugpf kk
*R/MUO RMr u+f cp"vgnpqmji k'ctcu'tgpf cj "S T/rkpm'kput wo gpv'r gecj cp"f cp
[qw'Vwdg0
- g+ O gpi gpcrr cuk'o kpcv'o wtkf "ngdqrgj cp"vpi i k'vgtj cf cr "r gpi i wpccp"cr rknæk
o qdkg" r gto ckpcp" r gpf kf knæp" R/MUO RMr u" f cræo " r go dgrælcetp" vqr km
r gecj cp0
- h+ O gpi gpcrr cuk'o kpcv'o wtkf "ngdqrgj cp"tgpfcj "vgtj cf cr "r gpi i wpccp"cr rknæk
o qdkg" r gto ckpcp" r gpf kf knæp" R/MUO RMr u" f cræo " r go dgrælcetp" vqr km
r gecj cp0

30'' Rgtuqncp'Melkcp''

Melkcp''kp'o gpley cd'r gtuqncp''uco c''cf c''R/MUOO RMr u''{ cpi ''f kj cukncp''ugtvc''
S T/rkpm'kpiut wo gpv'r gecj cp''f cp''[*qwVwdg.* 'kckwr' gtkukcp''hwtuwu'dwmw'vgnu'MRO 'r gecj cp''
MUOO RM'o co r w'pwnrb gp{ grguckncp''r gto cucncj cp''r go dgrclctcp''{ cpi ''f kj cf cr k'qngj ''
o wtkf ''dgo cucncj ''r gdgrclctcp''f cnc'o ''qr knr' gecj cp''dgtuco c''o go dcpw'o gpkpi ncvncp''
r gpecr ckcp''f cp''o kpcv'o wtkf O'Rgtuqncp''dgtknw'f kngo wncncp''wpwnr'nc'lkcp'<

k0 Cf cncj '' vgtf cr cv'' r gtdgl ccp'' cpwctc'' r gpi i wpcpcp'' cr rkncuk'' o qdkrg'' r gto ckpcp''
r gpf kf kncp'' R/MUOO RM' f cp'' o qf '' r go dgrclctcp'' r gtkukcp'' nc'kj '' wdk' *S T/rkpm*
kpiut wo gpv'r gecj cp''f cp''[*qwVwdg*''vgtj cf cr ''r gpecr ckcp''r gecj cp''o wtkf A

kk0 Cf cncj '' vgtf cr cv'' r gtdgl ccp'' r cf c'' r gpecr ckcp'' r gecj cp'' dci k'' o wtkf ''ngdqngj cp''
vpi i k'' { cpi '' o gpi i wpcncp'' R/MUOO RM' f gpi cp'' r gplgrucup'' ugpf ktk'' *R/
MUOO RMr u'' f cp'' vgnpqmji k'' ctcu'' tgpfcj '' *S T/rkpm' kpiut wo gpv'* r gecj cp'' f cp''
[*qwVwdgA*

kk0 Cf cncj '' vgtf cr cv'' r gtdgl ccp'' r cf c'' r gpecr ckcp'' r gecj cp'' dci k'' o wtkf '' f gpi cp''
ngdqngj cp'' tgpfcj '' { cpi '' o gpi i wpcncp'' R/MUOO RM' f gpi cp'' r gplgrucup'' ugpf ktk''
*R/MUOO RMr u'' f cp'' vgnpqmji k'' ctcu'' tgpfcj '' *S T/rkpm' kpiut wo gpv'* r gecj cp'' f cp''
[*qwVwdgA*

kx0 Cf cncj '' vgtf cr cv'' r gtwdcj cp'' r cf c'' o kpcv'' o wtkf '' ngdqngj cp'' vpi i k'' vgtj cf cr''
r gpi i wpcpcp'' cr rkncuk'' o qdkrg'' r gto ckpcp'' r gpf kf kncp'' R/MUOO RMr u'' f cnc'o
r go dgrclctcp'' qr knr' gecj cp''0

x0 Cf cncj '' vgtf cr cv'' r gtwdcj cp'' r cf c'' o kpcv'' o wtkf '' ngdqngj cp'' vpi i k'' vgtj cf cr''
r gpi i wpcpcp'' cr rkncuk'' o qdkrg'' r gto ckpcp'' r gpf kf kncp'' R/MUOO RMr u'' f cnc'o
r go dgrclctcp'' qr knr' gecj cp''0

30 J kr qvguku'Melkcp''

Dgtf cuctnep'' ngr cf c'' qdlgmkh' f cp'' r gtuqcncp'' nclkcp.'' o cnc'' nclkcp'' kpk' vgrcj''
o go r gtvko dcpj ncp''5''j kr qvguku'wco c''wpwmif kvlk'r cf c''r ctcu'uki pklkncp''20270'

J 23<"Vkf cni'vgtf cr cv'r gtdgl ccp'' { cpi ''uki pklkncp'' cpvctc'' r gpi i wpccp'' cr rknucuk' o qdkrg''
r gto ckpcp''r gpf kf knep''R/MUO RM'f cp''o qf''r go dgrlctcp''r gtlukcp''rcvj ''wdk'S T/
rkpmikpuat wo gpv'r gecj cp''f cp''/ qw'Vwdg''vgtj cf cr ''r gpecr ckcp''r gecj cp''o wtkf A'

J 24<"Vkf cni'vgtf cr cv'r gtdgl ccp'' { cpi ''uki pklkncp''r cf c''r gpecr ckcp''r gecj cp''dci k'o wtkf''
f gpi cp'' ngdqrgj cp'' vpi i k' { cpi '' o gpi i wpcncp'' R/MUO RM' f gpi cp'' r gplgrucp''
ugpf kt k''*R/MUO RM'r u''f cp'' vgnpqmji k'ctcu't gpf cj ''S T/rkpmikpuat wo gpv'r gecj cp''
f cp''/ qw'VwdgO'

J 25<"Vkf cni'vgtf cr cv'r gtdgl ccp'' { cpi ''uki pklkncp''r cf c''r gpecr ckcp''r gecj cp''dci k''
o wtkf'' f gpi cp'' ngdqrgj cp'' tgpfcj '' { cpi '' o gpi i wpcncp'' R/MUO RM' f gpi cp''
r gplgrucp''ugpf kt k''*R/MUO RM'r u''f cp'' vgnpqmji k'ctcu't gpf cj ''S T/rkpmikpuat wo gpv''
r gecj cp''f cp''/ qw'VwdgA'

30 Mgr gpvpi cp'Melkcp''

Melkcp/nclkcp'' { cpi '' vgrcj '' f klcrpcncp'' ugdgrwo '' kpk' cf crcj '' dgtncckcp'' f gpi cp''
r gpi i wpccp''r gtlukcp''f crco ''r go dgrlctcp.''pco wp'nclkcp''{ cpi ''cncp''f klcrpcncp''kpk'rgdkj''
hqmwu''ngr cf c''r gpi i wpccp''cr rknucuk' o qdkrg''r gpf kf knep''r gto ckpcp''dci k'vqr kni'Rgecj cp''
MUO RM'dci k' o wtkf'' o cucrcj '' r go dgrlctcpO' Rgecj cp'' kercj '' vqr kni' { cpi '' two k' f cp''
o gy wlvf ncp''r gndci cknguwkcpOQngj ''kw'r gpf gncvcp''r go dgrlctcp''r gecj cp''r gtrwf knclk''

ugo wæ"ci ct'r gpecr ckep"o wtkf "f cr cv'f kr gtdckmUgr cf cp'f gpi cp'ncpi ncj "Mgo gpvgtkcp"
Rgpf kf kncp"O cnc { uk"ng"ctcj "r go dgrcletcp"r gecj cp"o gpi i wpcncp"r gtkukcp"vgnpqmji k'
ctcu'tgpf cj "S T/rkpnikpust wo gpv'r gecj cp'f cp'f qwVwdg."nckcp"lpk'vncj "o gtgnæ"dgpwni'
f cp" o go dcpi wncp" cr rkncuk" o qdkg" r gto ckep" r gpf kf kncp" R/MUO RM" {cpi "
f kj cukncp"nj wuwu'dci k'o wtkf "dgt dgl c"vcj cr "ngdqncj cp0T wo wucpp{c."nckcp"lpk'cncp"
o go dcpw'f cncp "r gndci ck'cur gmlugr gtvk'dgtknw<

k0 Rgpgo wcp" nckcp" cncp" o gp{wo dcpi " f cncp " o go cukncp" o qf " r gtkukcp
r gpf kf kncp" {cpi "ghmki'dci k'o wtkf "ugectc'rc| ko "f cp'dgtrckcp"vcj cr "ngdqncj cp0

kk0 Mqo r qukuk"nqo r qpqp"r gtgnæcp"ckkw"o qf gn'xgtdcn"o qf gn'r kmqtkcn'cwpvgpvm
*i co dct" ngj kf wr cp" ugdgpct+." cmkxkk" r gpegtkccp" cwpvgpvm' *r gpegtkccp
ngj kf wr cp"ugdgpct+."hcmqt"uqnapi cp"*r gpi i gtcni' gplgrucp"ugpf k'kf cp"o cncp
dncu+."uqnapi cp"o wncp gf kc."r gpi i gtcni'r gpi gvcj wcp"ugf kc" cf c" f cp" vgnplm
egdkucp"*Ej wnpki +"{cpi "uglelct"nqput wnkif gpi cp'hgr gtrncp'r go dgrcletcp" f cp
ngdqncj cp" o wtkf " cncp" o go dcpw" o gpi nqputwn'ungo c" r go dgrcletcp" {cpi
dgtngucp0

kk0 Mqo r qpqp/nqo r qpqp" ntkkncn'tgnc" dgpwni' o qf " r gtkukcp" r gpf kf kncp" ugr gtvk
nqo r qpqp" hcmqt" uqnapi cp" ckkw" r gpi i gtcni' r gplgrucp" ugpf k'kf f cp" cmkxkk
r gpegtkccp" cwpvgpvm'dgtr cpf wncp"ngcf ccp" ugo cuc" o wtkf " {cpi "cncp" o gplcf k
ngdkuccp" hgr cf c" o wtkf "wpwni'o gpi nqputwn'ungo c'dci k'o wtkf "dgtrckcp"vcj cr
ngdqncj cp0

30 Dvwucp'Melkcp''

Melkcp'kp'k'o gpi nalk'ngdgtngucpcp'hqo r quuk'hcmqt'tgnc'dgpwnif cno 'Cr rkneuk'
O qdkg'r gpf kf knep" dgtcucuncp" r gto clkpcp" Rgecj cp" MUO RM' *R/MUO RM" f gpi cp"
ngdgtngucpcp" r gpi i wpcp" vgnpqni k'ctcu'tgpf cj "ugr gtvk'S T/rkpm'kpmt wo gpv" r gecj cp"
f cp"/ qwVwdg'f ctk'dwmw'gmi'r gecj cp" MUO RM' vgtugdwhgvcu'r gpecr clkpcp' b wtk' f cno "
r gecj cp" { cpi " dgtckpcp" vj cr " ngdqngj cp' Rqr wruk' uco r gn' nalkcp" j cp{ c" dgtwo r w'
ngr cf c" o wtk' " Rtqi tco " Rgpf kf knep" Mj cu" Dgtkpvgi teuk' o cucnj " r go dgrcltcp" Ugnqncj "
O gpgpi cj " { cpi " o gpi i wpcncp" Dcj cuc" O gr{ w' ugdcj ck' dcj cuc" r gpi cpvctc" f cno "
r go dgrcltcp" O cvgo cvknf kf cgtcj . 'Rgtenlucj clc0Lwngtw' f cr cvcp' nalkcp' kp'vk' cni'dqngj "
f ki gpgerkucuknep" f gpi cp" o cpc/o cpc" nwo r wrcp" uco r gn' nalkcp" ugrkcp" f ctkr cf c" o wtk'
Rtqi tco 'Rgpf kf knep' Mj cu' Dgtkpvgi teuk' O cucnj 'Rgo dgrcltcp' Ugnqncj 'O gpgpi cj "{ cpi "
o gpi i wpcncp" Dcj cuc" O gr{ w' f cno " r go dgrcltcp" O cvgo cvknf vqr kni' r gecj cp"
MUO RM"

Fk' uco r kpi " kw." nalkcp" kp'k' vgtj cf " ngr cf c" r gtdkpcpci cp" o kunupugr uk' vqr kni'
r gecj cp" f cp" vk' cni' o kpcv" ugtv" ngr kpcpci cp" r go dgrcltcp" uwd" vqr kni' r gto wf cj nep"
r gecj cp." r gtdcpf kpi cp" r gecj cp" f cp" r gecj cp" ugvtc0' Qngj " { cpi " f go knkcp." f cr cvcp"
nalkcp" kp'k' j cp{ c" dqngj " f ki gpgerkucuknep" f gpi cp" r go dgrcltcp" r gecj cp" { cpi "
o gtepi nwo k'uk'kw'qdlgmki' r go dgrcltcp" { cpi " uco c0'

30 Fghpkuk'Kvncj "

F cno "nalkcp'kp'kf ghpkuk'kvncj " f kp{ cvncp" ugectc" qr gtcukqpen' ugr gtvk' dgtknw' "

30 Ø''' Cr rkneuk' O qdkg' Rgt o clkpcp' Rgpf kf knep''

"F cno " nqpvgni" nalkcp" kp'k' Cr rkneuk' O qdkg' Rgt o clkpcp' Rgpf kf knep" o gtwlwni'

ngr cf c" dcj cp" { cpi " f kgnē" dgpwni' o grnwk' r gtlukcp" crv" r gpi ctepi cp" f ko cpc" kuk'
nēpf wpi cp" r go dgrēletcp" f lūco r cknēp" f crco " dgpwni' r gto clēpcp" f gpi cp" o go r wp { ck'
nktgk/ntkgtk" r gto clēpcp" f cp" ek'k' rē | ko " ugf kē" cf c" f crco " r gtugnkctcp" o wnwko gf kē"
ugr gtvk'vgnū. "i tchm" f cp" cpko cuk*Eco kngtk("Eco kngtk"4239+0"

F crco 'hūpvgnū'hēlēcp'kpk' r gtlukcp' r gto clēpcp' r gpf kf knēp' f crco 'hēlēcp'kpk'vgtf kē'
f ctkr cf c'ucw'lgpku. 'kckw<

***c+ Cr rknēuk' O qdkg' Rgt o clēpcp' Rgpf kf knēp' R/MUO RM**

Cr rknēuk' o qdkg" r gto clēpcp" Rgpf kf knēp" Rgecj cp" MUO RM" *R/MUO RM"
f gpi cp" r gpi i gtcn' r gplgrēucp" ugpf kēk' *R/MUO RM r u" { cpi " f kēcpi wpnēp" dgt dgpwni'
r gto clēpcp" j cuki' nūo r qukuk' gpco " nūo r qpqp" r gtgnēcp. " kckw" o qf gn' xgtdcn" o qf gn'
r kmqtken' cwgpvkn' *i co dēt" ngj kf wr cp" ugdgpct+." cmkxkk' r gpegtkccp" cwpgpvkn'
*r gpegtkccp" ngj kf wr cp" ugdgpct+." hcmqt" uqnpipi cp" *r gpi i gtcn' r gplgrēucp" ugpf kēk' f cp"
o cmwō " dcrū+." uqnpipi cp" o wnwko gf kē. " r gpi i gtcn' r gpi gvcj wcp" ugf kē" cf c" f cp" vgnpkn'
egdkcp" *Ej wpmkpi +0' Cr rknēuk' kpk' o go r wp { ck' hcmqt" uqnpipi cp" dgt dgpwni' r gpi i gtcn'
r gplgrēucp" ugpf kēk' f cp" o cmwō " dcrū" MQT. " o cmwō " dcrū" r gwplwnif cp" o cmwō " dcrū"
vkf cmlngvctc0'

30 04" O wtkf 'O cucnēj 'Rgo dgrēletcp"

O wtkf/o wtkf " nē cu" o cucnēj " r go dgrēletcp" dqrēj " f kēcj ci k' ngr cf c" dgdgter c"
nēvgi qtk' o gpi kmw' vj cr " nūo r rgnū" ugr gtvk' Uqf t qo " F qy p. " Cwkwō g. " Rcnuk' Ugt gdt cn"
Cwgpvkqp " F hkek' " F kuqtf gt " *CF F +f cp" Cwgpvkqp " F hkek' " J kr gt cēvkxg " F kuqtf g " *CF J F +"
f cp" Rlpvct" Egtf cu" *Mgo gpvgtkcp" Rgpf kf knēp" O crē { ulc. " 4237+0' F crco " nēlēcp" kpk'
r qr wēuk' f cp" uco r gn' o wtkf " { cpi " f kr kēj " kēnēj " f ctkr cf c" nēvgi qtk' o wtkf " nē cu" o cucnēj "
r go dgrēletcp" { cpi " o gpi kmw' r grēnūcpcp" Rf Re" dgtf cuctnēp" Mwtknwō " Uēpf ctf "

Ugnuruj "O gpgpi cj "Rgpf kf knep" Mj cu" *MUUO RM# dci k'o wtk /o wtk "{ cpi "o gpi wcuck"
vcj cr "o kpk wo "ngo cj kcp" cucu" 50 0""

F cico "nupvgmi" nclcp" kpk" o wtk "nj cu" o cucrj "r go dgrlctcp" { cpi "o gpi knwk"
r grncpccp" Rf Re" dgtf cuctnep" Mwtknwwo "Ucpcf ctf "Ugnuruj "O gpgpi cj "Rgpf kf knep"
Mj cu" *MUUO RM# f cico "nclcp" kpk' vgtf k' k' ctkr cf c' f wc' n' vgi qtk' kckw"

***c+ O wtk 'Mgdqrgj cp' Tgpf cj**

O gpwtw' F co c{ cpk' f cp" Uwo ctf k' *423: + " o wtk " mgdqrgj cp" tgpfcj " wf cni'
o go r wp{ ck' r gpi gvcj wcp" f cp" ngo cj kcp" vgpvpi " utwnwt" r go dgrlctcp" uguwew" vqr kn0'
F cico "nupvgmi" nclcp" kpk" o wtk "mgdqrgj cp" tgpfcj " f kgpwnep" o grnc' o ctnej " wlcjcp"
o cvgo ckn' r gtvpi cj cp" vcj wp. " kckw" o wtk " { cpi "o gpf cr cv" 7; " o ctnej " f cp" ng" dcy cj "
*Ngo dci c" Rgr gtlmccp" O cnc { uk. " 4238-0' O wtk /o wtk " kpk" o culj " dgrwo " o go r wp{ ck'
r gpi gvcj wcp" ugf k' cf c" { cpi "o cpvr " f cp" mwnj " ugtv" wf cni' dqrgj " o go dgpwn' ungo c"
r go dgrlctcp" f gpi cp" ugpf k' k' ugtv" vcj cr " r gpi wcuccp" 50 " { cpi "o go wcunep0"

***d+ O wtk 'Mgdqrgj cp' Vpi i k**

O gpwtw' F co c{ cpk' f cp" Uwo ctf k' *423: + " o wtk " mgdqrgj cp" vpi i k' o go r wp{ ck'
r gpi gvcj wcp" f cp" ngo cj kcp" vgpvpi " utwnwt" r go dgrlctcp" uguwew" vqr kn0' O wtk /o wtk "
kpk" uxf cj " o go r wp{ ck' r gpi gvcj wcp" ugf k' cf c" { cpi "o cpvr " f cp" mwnj " ugtv" dqrgj "
o go dgpwn' ungo c' r go dgrlctcp" { cpi " dgwn' f gpi cp" ugpf k' k' F cico "nupvgmi" nclcp" kpk"
o wtk " dgtmgdqrgj cp" vpi i k' f kgpwnep" o grnc' o ctnej " wlcjcp" r gtvpi cj cp" vcj wp. " kckw"
o wtk " { cpi "o gpf cr cv" 82" o ctnej " ng" cvu" *Ngo dci c" Rgr gtlmccp" O cnc { uk. " 4238+ f cp"
o gpi wcuck" 50 0"

30 05'' O kpcv''

F cico "nupvgmu"nalkcp"kp'k'o kpcv'o gtwr cnep"fc{c"r gpi i gtcni}{cpi "o gpf qtqpi " o wtkf " uwr c{c" o go dgtk' r gtj cvkcp" vgtj cf cr " Rf Re" o gpi i wpcnep" cr rkneuk" o qdkrg" r gto ckpcp" r gpf kf knep" Rgecj cp" MUUO RM0' Cr rkneuk" o qdkrg" r gto ckpcp" Rgpf kf knep" Rgecj cp"MUUO RM*R/MUUO RM+f gpi cp'r gpi i gtcni' r gplgrucp"ugpf ktk*R/MUUO RMr u+" {cpi "f kdcpi wpcnep"dgt dgpwni'r gto ckpcp"j cukl'nqo r quuk'gpc "nqo r qpqp"r gtgnecp0' Cr rkneuk'kp'k'o go r wp{ck'hcmt"uqnapi cp"dgt dgpwni'r gpi i gtcni' r gplgrucp"ugpf kt'f cp" o cmwo "dcru"MQT."o cmwo "dcru"r gwplwni'f cp"o cmwo "dcru"vkf cni'ngctc" {cpi " o gpi i gtcnep" o kpcv' o wtkf " ngctcj " r go dgrlctcp" {cpi " f cr cv' o go dgpwni' ungo c" r gecj cp" {cpi "dgtngucp0'"Qngj "kw."f cico "nalkcp"kp'r gpi nalk'cnep"o grkj cv'ngucp" r gpi i wpcp"Cr rkneuk'O qdkrg"Rgo dgrlctcp"Dgtcucunep"Rgto ckpcp"Rgecj cp"MUUO Rni' vgtj cf cr "o kpcv'r grlct"ugo cuc"r tqugu"Rf Re"dgtcnw"fcico "o cv"r grlctcp"O cvgo cvni' dci k'vqr kni' gecj cp"MUUO RM0"

30 06'' Rgpecr ckcp''

O gpwtw" F go kt" f cp" Cnr kpcr " *423: + " o gplgrucnep" dcj cy c" r gpecr ckcp" o gpi cpf wpi k'ugv'tcpi ucpi cp" {cpi "o gpi wnw" r gpi wucp" f cp"ngo cj kcp" kpf kxk'w" f cico "dkf cpi " {cpi "nj wuw0'F cico "nalkcp"kp'r gpecr ckcp"o gtwlwni'ngr cf c"r gpecr ckcp" wlcpr"r cucc" {cpi "f kdgtknep"ngr cf c"o wtkf "ugngr cu"necf cj "r go dgrlctcp" f krcmepcnep" vgtj cf cr "o wtkf 0Rgt dcpf kpi cp'vcj er 'r gpecr ckcp"o gtgnec"fcico "r gecj cp"MUUO RM'cnep" f krcmwnep"o grcnk'f wc"necf cj "kckw"necf cj "r go dgrlctcp"cr rkneuk"o qdkrg"r gto ckpcp" r gpf kf knep" dci k'o wtkf "f gpi cp"ngdqngj cp"tgpf cj "f cp"vki i k' {cpi "o gpi i wpcnep"R/ MUUO RM'f gpi cp"r gpi i gtcni' r gplgrucp"ugpf ktk'R/MUUO RMr u+" f cp"vgnpqngi k'ctcu" tgpf cj "S T/rkpm'kpwt wo gpv" r gecj cp" f cp" [qvwvdg0' Ugrlcp" kw." r gpecr ckcp" o gtwlwni'

ngf cf c'r gpecr ckcp"wlkcp"r cucc"{ cpi "f ki wpcncp" f cno "cpcrkuku"wlkcp/vf cp"Wlkcp"Ocpp"
Y j kpgf "W"/"Wlkcp"Y kreqzqp"TcpmlUwo "Vguo

302 Two wucp"

Dcd"kp'k'o go dkpepci ncp"vpcpi "rcvt"dgrncpi "nalkp" f k'o cpc"r gto cucncj cp"
dgtncckcp"nupgr "cucu" f cp"ngo cj kcp"{ cpi "dgrncw" f cno "r go dgrncletcp"r gecj cp"ugtvc"
wucj c"dcu k'o gpi cvuk'r gto cucncj cp"vgtugdw" f gpi cp"r gpi i wpcpc"cr rkncuk'r gpf kf knep"
Vkf cm'o kpcv"ugtvc" ngr kpepci cp"r go dgrncletcp"r gecj cp" f k'ncncpi cp"o wtkf "Rtqi tco "
Rgpf kf knep" Mj cu" Dgtkpgi tcuk" O cucncj "r go dgrncletcp" Ugnncj "O gpgpi cj "o go dgtkncp"
i co detcp"{ cpi "lgru"vpcpi "r gtp{ cvccp"o cucncj ORgpi i wpcpc"o qf "r gtkukcp"r gpf kf knep"
dgt dgpwn"r gto ckpcp" f gpi cp"nqo r quuk" nqo r qpgp"r gtgnccp"o co r w'o gpkpi ncncp"
r gpecr ckcp"o wtkf "f cno "vqr knr gecj cp" Ugvgtwup{ c. "nalkp" kpkf kcp i nc" f gpi cp" qdlgmki"
o gtgncc" dgpwn" f cp"o go dcpi wncp" cr rkncuk" o qdkng"r gto ckpcp"r gpf kf knep" Rgecj cp"
MUO RM" *R/MUO RMr u" dci k'o go gpwj k' ngr gtnccp"o wtkf "ugectc" wo wo "f cp" lwi c"
{ cpi "dgt dgl c"vcj cr "ngdqngj cp" f k'o cpc" j cuk'cnj k" nalkp" kpk'cncp"o gpgpwnep"o qf "
r gtkukcp"r gpf kf knep"{ cpi "r ctkpi "dgtngucp" f cp" f ko kpcv'qngj "o wtkf /o wtkf "vgtugdw"