

Basic macros	Defining babe-
lensure Short tags Compatibility with language.def Hooks	Macros for
setting language files up Shorhands	Language
attributes Macros for saving definitions Hyphens	Multi-
encoding strings Macros related to glyphs	Bidi
layout Input engine specific macros Font handling with fontspec	
Redefinitions for bidi layout hebrew	
hebrew	
Undefined language " in aux.	
Reported	

nA :serutcurtsarfni egdelwonK ni msilatipaC tniopakohC sisylanA citeroehT-PVSR

noixylF

5202 ,22 rebmetpeS

תקציר

ytisrevid egdelwonk gnitcirtser rof msinahcem a sa msilatipac tniopakohc senimaxe yasse sihT dehcirne krowemarf citeroehT-PVSR na gnisu ,serutcurtsarfni larutluc dna ,lacisyhp ,latigid ssorca lavitsef ,smetsys gnitarepo elibom gninnaps sesac hguorhT .yroeht faehs dna yrogetac htiw ,smetsys citebahpla fo noitulove lacirotsih eht dna ,smroftalp hcraeser IA ,seicilop asiv ,scimonoce gnicuder ,noitaulave erutamerp gnicrofne yb ytisrevid cimetsipe ecirpsim stniopakohc taht eugra I cidanom a sa deledom ,noitamotua derrefed fo mgidarap lanoitcnuf A .laitnetop ciportnegen lacigolohprom stpircs cibara eht htiw ,ygetarts-retnuoc a sa desorporp si ,emiger noitaulave-yszal ylno ton dereffo era smsilamrof lacitamehtaM .ralpmexe lanoitatupmoc a sa gnivres srotareneg ,ytirohtua lacitamehtam rof hsitef larutluc eht euqitirc ot osla tub sretsiger tcartsba etalupop ot .ytilibissecca rof dedivorp snoitalsnart egaugnal-larutan htiw

noitcudortni 1

serutcurts cimonoce sebircsed ,[2202] worotcoD dna nilbiG yb detalucitra sa ,msilatipac tniopakohC sihT .sevitaretla gnisserppus elihw stner gnitcartxe ,stekram ot ssecca lortnoc srepeeketag erehw latigid ni rehtehwstniopakohc taht gniugra ,serutcurtsarfni egdelwonk ot tpecnoc eht sdnetxe yasse eulavrednu yllacitametsysnoitulove tpircs lacirotsih ro ,seicilop noitargimmi ,stneve lacisyhp ,smroftalp ralacs erehw ,krowemarf PVSR eht gnisU .ecneiliser cimetsipe fo revird lacitirc a ,ytisrevid tniopweiv hcus woh etartsnomed I ,scimanyd metsys ledom (S) yportne dna ,(v) swolf rotcev ,(Φ) yticapac mgidarap lanoitcnuf A .stimiloc ytisrevid espalloc taht sretlif tnojda-thgir sa noitcnuf snoitcirtser ,laitnetop ciportnegen evreserp ot desorporp si ,noitatupmoc yzal yb deripsni ,noitaulave derrefed fo .yduts esac lanoitatupmoc a sa ygolohprom stpircs cibara eht htiw

noitcirtseR egdelwonK sa msilatipaC tniopakohC 2

smroftalp latigiD 2.1

noitazimotsuc level-metsys gnitcirtser yb stniopakohc esopmi (SOi ,diordnA) smetsys gnitarepo eliboM ecracs a sa ngised tnof sesnecil ymonoce emeht sgnusmaS ,ecnatsni roF .(slanimret ,stnof ,g.e) ,stluafed erutamerp secrofne tpmorp ppa siht esu syawlA sdiordnA elihw ,yrettol a ot nika ,egelivirp .[0202 ,worotcoD] sevitaretla fo noitarolpxe segaruocsid taht siseretsyh gnitaerc

seugolanA lacisyhP 2.2

ot srelles tnednepedni gnicilop ,ytivisulcxe rof seef tnatibrox e srodnev egrahc srezinagro ,slavitsef tA fo) ytisrevid dna ,dezitenom si ssecca :stniopekohc latigid srorrim sihT .yticracs laicifitra niatniam .[2202 ,worotcoD dna nilbiG] desserppus si (saedi ro srodnev

stniopekohC level-etatS 2.3

,ytilibom robal stcirtser ,5202 ,02 rebmetpeS no detnemelpmi ,000,001\$ fo eef asiv B1-H .S.U ehT dna aidnI ekil seirtnuoc noitalupop-hgih morf sevitcepsrep esrevid fo eulav cimetsipe eht gnicirpsim wen ot ylno seilppa ,pmurT dlanoD tnediserP yb dengis ,ycilop ehT .[5202 ,sweN CBC] anihC tnerruc tceffa ton seod ti gniyfiralc esuoH etihW eht htiw ,noisufnoc dekraps sah dna stnacilppa neeb sah ycilop eht dna ,aidnI morf era sredloh B1-H fo tnecrep 07 revO .slawener ro sredloh .seilimaf ot snoitpursid nairatinamuh laitnetop rof sriaffA lanretxE fo yrtsiniM s'aidnI yb decnuoned elor rieht gnirongi ,serih ngierof egaw-rewol gnirovaf yb srekwrow naciremA stucrednu ti eugra scitirC .[5202 ,sweN CBC] sreifilpma ciportnegen sa

smroftalP hcraeseR IA 2.4

snoillirt gnirutpac ,sledom tset-sserts ot sresu gnigrahc yb hcraeser lanoitidart trevni seinapmoc IA a si sihT .stsoc gnizilanretxe elihw (mrif eno rof detamitse noillirt 51\$,.g.e) eulav ciportnegen ni .dellot si noitcudorp egdelwonk ot ssecca erehw tniopekohc

stniopekohC lacirotsiH sa noitulovE citebahpIA 3

tniopekohc setartsulli stpircs nital dna ,keerG ,cibarA ,werbeH otni naicineohP fo noitulove ehT ,etartsbus yportne-hgih a saw tpircs latnanosnoc snaicineohP .serutcurtsarfni larutluc ni scimanyd gnicuder ,noitazilewov regae decrofne nital dna keerG .serutluc ssorca noitaulave yzal gniwolla ,noitazilacov derrefed cibarA dna werbeH elihw ,ytisrevid elbault ni sraet gnitaerc tub ytiugibma .ssenheir lairotanibmoc gnivreserP

relbmessa lanoitatupmoC sa tpircs cibarA 4

-wol ni relbmessa na ot suogolana ,metsys rotareneg lanoitatupmoc a seifilpmexe tpircs cibarA ehT ,arsak ,ataf) slewov htiw ,(srotareneg) snoitcurtsni esab sa noitcnuf stnanosnoC .gnimmargorp level (XI smroF) serusaem lacigolohprom dna ,selballys etaitnatsni taht stnemugra sa nkus dna (amma yzal srorrim erutcurts sihT .stoor morf sdleif citnames evired taht snoitamrofsnart redro-rehgiH sa eviterpretni gnizimixam ,noitazilaer ecrof scitircaid ro txetnoc litnu cilobmys niamer stoor :noitaulave yportne-hgih a stroppus metsys derrefed scibarA ,tnemtimmoc lewov ylae skeerG ekilnU .laitnetop .T xidneppA ni emiger cidanom a sa dezilamrof ,timiloc lacixel

yhcratuF sa noitaulavE derrefeD :ygetartS-retnuoC 5

sevreserpnoitulove tpircs ro ,stluafeD ppa ,senilepip egdelwonk ni rehtehwnoitamotua gnirrefeD gnicrof syaled ygetarts siht ,yrogetac PVSr eht ni danom a sa deledom .ytisrevid cimetsipe gnizimixam ,derolpxe era (snoitatpada larutluc ,seciohc ppa ,stfard) snoitces lacol fo stimiloc litnu siht seidobme ,(syasse tsuj ton) seert yrotcerid setareneg hcihw ,enilepip nwo yM .eulav ciportnegen .ygolohprom stpircs cibarA eht seod sa ,elpicnirp

eciohC yralubacoV rof yroehT dleif tniopakohC 6

,(sdradnats EAR) hsinapS ro (stcelaid .sv ASM) cibara ekil sdradnats nredom htiw segaungal nI eht eb X teL .stceloidi dna ,aidem ,sessenisub hguorht gniretlif lacihrareih sa tsefinam stniopakohc seziminim $\sigma_g : X \rightarrow \mathcal{L}_g$ dleif yralubacov eht .eldnub tpecnoc eht $\mathcal{L}_g \rightarrow X$ dna dlofinam txeTnoc noitca eht

$$\mathcal{S}[\sigma_g] = \int_X [\alpha C_{\text{comp}}(x, \sigma_g(x)) + \beta C_{\text{prest}}(x, \sigma_g(x)) + \gamma \|\nabla_A \sigma_g(x)\|^2 + \lambda V_{\text{choke}}(x, \sigma_g(x))] d\mu(x).$$

eeS .seiradnuob esahp gnidleiy gnilpuoc htiw , $E(x, w)$ ygrene no xamtfos swollof eciohc lacoL .sliated rof \mathfrak{N}'' xidneppA

noisulcnoC 7

nac seugolana citsiugnil sti dna msilatipac tniopakohc taht deugra evah ew ,yasse siht tuohtguorht dna ,smetsys erutseg ,eciohc yralubacov gnitaert yB .anemonehp citeroeht dleif sa dootsrednu eb , V_{choke} slaitnetop gnipeeketag yb deniartsnoc dlofinam a fo snoitces sa ygremgits lacigoloe neve dna ,erutavruc lanoitutitsni ,tnemeganam yportne ,ytisrevid derrefed :erutcip deifinu a revocer ew namuh ot gniggalf-liat reed morfsgnippam lairotcnuf evitarapmoc eht .skrowten laruen suonegoxe rehgiH a no detautis eb nac smetsys evitacinummoc lla taht etartsnomedsgniHcnarb tserof ot sewaw si erutavruc tniopakohc reverehw sedoc lacoL neewteb etalsnart srotcnuF .dlofinam egaungal-atem .egreme seiradnuob esahp dna sraet yportne ,sliaf ti erehw ;elbitapmoc :elpicnirp eno rednu ygoloe dna ,erutseg ,scitsiugnil ,msilatipac semarfer yroehT dleif tniopakohC fo ytisrevid tnerappa eht .erutavruc dna yportne ot tcejbus erutcurtsarfni si noitacinummoc hsiloba ot ton si ksat eht .dlofinam elgnis a no strahc fo tes a sishtap ,seidob ,sdrowaidem evreserp taht syaw ni meht etubirtsider dna ,refed ,dnatsrednu ot tub ,(elbissopmi) stniopakohc .yportne evitcurtsed eziminim dna ytivitareneg ,selpicnirp noitca ciportne syroehT PVSr nihtiw krowemarf siht ezilamrof yam krow erutuF siht nI .scihte cimanydomreht emas eht otni ngised larutcurtsarfni dna eciohc egaungal gniddebme nur yhratuf fo secnatsni sa detaert eb nac ygoloe dna ,erutseg ,hceeps ,ymonoce fo snoitseuq ,yaw otni gninaem yrrac lliw syawhtap evitacinummoc hcihw no steb gnikaM hcae :setartsbus lacisyhp yb .erutuf eht

stniopakohC htiW gniviL :eugolipE

.stluaFed ecrofne dna ,ssecca timil ,secirp esiar yehT .selcatsbo ekil kool stniopakohc ,ecnalg tsrif tA fo smrof yrev eht epahs osla stniopakohc taht nees evah ew ,ygoloe dna ,erutseg ,egaungal ni tuB gninaem etareneg smetsys woh fo trap era yeht ;latnedicca ton era yehT .no yler ew noitacinummoc .ytilibats dna tserof eht otni desserp htap a ,liat sti gniggalf reed a ,etag a dniheb uoy gnittops robhgien A hcaE .egassem a otni ezillatsyrc tniartsnoc ro ,yticracs ,ytilibisiv erehw stnemom era eseht fo llaroolf ,drawrof ti yrrac taht setartsbus no sdneped ti :gnitaolf-erf ton si noitacinummoc taht rednimer a si .selur dna skceneltob nwo rieht evah setartsbus esoht dna gnivil fo syaw etavitluc ot tub ,stniopakohc tuohtiw dlrow a fo maerd ot ton si ,neht ,ksat eht etubirtsid taht serutcurtsarfni ngised dna ,nepo snoitpo peek ,stnemtimmoc refed nac eW .meht htiw liat a ro ,ymedaca na ,mroftalp a nehW eciton nac eW .meht gnitartnecnoc naht rehtar stniopakohc .ecnailpmoc gnicrofne ylerem ro ytivitareneg gnivres llits si ti rehtehw ksa dna ,worran oot semoceb

srohpatem ton era ygoloce dna ,erutseg ,egaugnal ,msilatipac neewteb slellarap eht ,yaw siht nees
ksa ot su etivni lla dna .setag hguorht ssap taht gninaem fo smetsys era lla .stnemngila laretil tub
naht rehtar ytilibissop yfilpma yeht taht os stniopekohc ruo egnarra ew nac woh :noitseuq emas eht
?ti hsinimid

tahw ,snoitidnoc niatrec rednU .kram osla yeht ;tcirtser ylno ton od stniopekohC .thguohT gnisolC
taht gninaem fo epacsdnal eht ni erutaef a—kramdnal a sa dootsrednu retteb si tniopekohc a llac ew
.ecaps dna emit ssorca noitatneiro swolla dna ,yromem srohcna ,egassap sediug

msilamrof no remialcsiD

elihw rogir lamrof rof hsitef larutluc eht ydorap secidneppa eht ni snoitalsnart lacitymehtam eht
stnemugra egaugnal~larutan eht rof eseht piks yam sredaer .retsiger citnames tcartsba na gnitalupop
.yltnednepedni dnats hcihw

meroehT gnicirpsiM tniopekohC 'X

gnitcepser smsihprom dna $x = (\Phi, v, S)$ setats fo yrogetac ladionom cirtemmys a eb PVSR tel
 $A : \text{Op}(X)^{\text{op}} \rightarrow \text{Set}$ faehserp eht J ygolopot htiw X ecaps a xiF .noitaxaler/noitavresnoc
a si ycilop tniopekohc A .sroivaheb PVSR elbisaef yllacol fo $A(U)$ tes eht $U \subseteq X$ ot sngissa
 $\text{Div}(A) = \text{colimSec}(A)$ si tcejbo ytisrevid eht $\iota : A_F \hookrightarrow A$ noisulcni htiw $A_F \subseteq A$ faehserpbus
evitiddarepus~timiloc dna snoitcejni ni enotonom noitaulav noitaulav a eb $V : \text{Set} \rightarrow \mathbb{R}_{\geq 0}$ tel
.evitisnes~PVSR

$\kappa : \text{Div}(A_F) \hookrightarrow \text{Div}(A)$ neht $(A_F$ ton tub A ni eulg A_F ni snoitces lacol) raet a si ereht fl
.onom reporp a si
nosirapmoc decudni eht $\text{Sec}(A)$ ni enoc elbaulg a ot spam taht $\text{Sec}(A_F)$ ni enoc a sevig raet A
.evitcejrus ton tub evitcejni si

$V(\text{Div}(A_F)) < V(\text{Div}(A))$ neht ,reporp si κ fl
.niamodoc no noitaulav sesaercni ylctirts tmemelpmoc llun~non htiw tes a otni onom reporp
 $V(\text{Div}(A_F)) < V(\text{Div}(A))$,(3V)–(1V) dna sraet rednU [gnicirpsiM tniopekohC]
.ssol tcirts sdleiy 2 noitisoporP ;reporp κ sekam 1 ammel

senilepiP egdelwonK ni yhcratuF ciportnE 'b

setats PVSR yb dehcirne $R = (R, E)$ hparg a si noitutitsni nA .yrogetac esab eht eb PVSR tel
faehserpbus sdleiy π ycilop .serih elbisaef sngissa $H : \text{Op}(X)^{\text{op}} \rightarrow \text{Set}$ faehserp eht x_r
ciportnE $J(S) = \sum_r \alpha_r \mathbb{E}[\Delta N_r(S)] + \sum_e \beta_e \mathbb{E}[N(f_e|S)] - \lambda \text{Risk}(S)$ noitaulaV $H_\pi \subseteq H$
 $V_\pi^{\text{div}} = V(\text{Div}(H_\pi))$ sezimixam yhcratuF
 $V_\pi^{\text{div}} < V^{\text{div}}$,sraet rednU [egatnavdA timiloC]
.meroehT gnicirpsiM tniopekohC morF

dleif rotcev PVSR debircserp a yb noitcevda evissap sa tnorf evaw llun eht ledom eW .ledom
:htiw

$$\partial_t \psi_\emptyset + v \partial_x \psi_\emptyset = 0, \quad \psi_\emptyset(x, 0) = \mathbf{1}_{[x_0, L]}(x)$$

:(LFC rof elbats) emehcs dniwpu na esU .noitazitercsiD

$$\psi_i^{n+1} = \begin{cases} \psi_i^n - c(\psi_i^n - \psi_{i-1}^n), & v > 0, \\ \psi_i^n - c(\psi_{i+1}^n - \psi_i^n), & v < 0, \end{cases} \quad c \equiv \frac{v \Delta t}{\Delta x}$$

, $\Delta x = L/N$, $= 0.8$ LFC , $v = 0.8$, $L = 1.0$,slec $N = 64$.(elpmaxe) eciohc retemaraP
 $\psi = (x \geq ,x_0 = 0.25 ,x = \text{np.linspace}(0, L - \Delta x, N))$. $T_{\text{final}} = 0.6$, $\Delta t = \text{CFL} \cdot \Delta x / v$
 $.x_0)$.astype(float)
htiw gningila dna yticinotonom gnivreserp ,tnorf llun gnicnavda eht setartsnomed noitalumis eht
.rotacidni tniartsnoc a sa ψ_{\emptyset} fo noitaterpretni eht

đanoM a sa noitamotuA derrefeD 'ŀ

yzal , D margaid roF . $a : T \Rightarrow \text{Id}$ gnicroF . η, μ htiw PVSR no danom larrefed a eb T tel
 $.X_E = \text{colim}(a \circ TD)$ regae , $X_T = a \circ T(\text{colim} D)$
 $.J(X_T) > J(X_E)$,tsixe sraet dna stimiloc sevrserp T fi [ecnanimoD yzaL]
snoitpo sespalloC gnicrof reilraE .ecno ecrof neht ,stimiloc aiv eulg , T edisni esopmoC
.ylerutamerp
, $X_T = a \circ T(\text{colim} \sum_e \text{run}(e, f))$ yzaL .srotaulave E ,selif eb F tel [tniopekohC ppA~tluafeD]
 $.J(X_T) > J(X_E)$,setanimod rotaulave on fi . $X_E = \text{colimrun}(e^*, f)$ regae
.enilepip regae ni tsol smaglama tnelaviuqeni seilpmi ecnanimod~noN
naicineohP) derrefed ,setanimod tpircs on fi ,snoitatpada naicineohP roF [tniopekohC citebahpLA]
 $.J(\text{Div}(A)) > J(\text{Div}(A_F))$ sdleiy (nepo

đanoM noitaulavE~derrefeD a sa ygolohproM cibara 'ŧ

miloc = (R)xeL . M_k serusaem , $V = \{, , \}$ slewov htiw T danoM .smrof drow ,stoor eb tooR tel
 $. \{M_k(\theta_v(R))\}$
 $.J(\text{Lex}_{\text{forced}}(R)) < J(\text{Lex}(R))$ sdleiy gnicrof erutamerp
.smaglama tnelaviuqeni sevrserp derrefeD

emigeR noitaulavE~yzaL a sa dajbA werbeH 'ŋ

(R)xeL . $B : \text{Root} \rightarrow \text{minayniB}$. θ_v sa duqqin htiw T danoM .smrof~drow mroF ,stoor eb tooR tel
 $. \{B(\theta_v(R))\}$ miloc =
 $.J(\text{Lex}(R)) > J(\text{Lex}_{\text{forced}}(R))$ sevrserp duqqin gnittimO
.timiloc sezimixam noitazilacov derrefeD

Dimension	naicineohP	werbeH	cibarA	keerG	ni
RSVP- Φ)capacity(	stnanosnoc 22 cilobmys sa ;snoteleks yportne hgiH laitnetop	latnanosnoC ;snoteleks sniamer Φ ni detaulavenu gnitirw	latnanosnoC + snoteleks lewov ticilpxe srekram	desopruper sa stnanosnoc rewol ;slewov yportne	dezinitaL nacsurtE dexif ;tpi lewov+tnano yrotne
RSVP- v)flows(	smsihproM noitpoda = tnereffid yb nepo ;serutluc sgnippam	sretam/duqqiN dedda ;ylevitceles sa txetnoc laro wolf	scitircaid lewoV citalpmet + tcerid serusaem swolf	lewoV tnemngissa secrof noitaulave ylrae swolf	evitartsinimd swolf dezidradnats eripme sso
RSVP- S)entropy(	lamixaM ynam :ytisrevid tnelaviuqeni sgnippam elbissop	yportne hgiH :devreserp derrefed stoor lautxetnoc litnu gnicrof	derutcurtS toor :yportne → nrettap → dleif lacixel	yportnE :decoder ytiugibma ni desserppus ytiralc fo rofaf	yportnE :deziminim decrofne etaerc stlua siserets
Lazy vs. Eager Evaluation	:yzal ylluF sa stnanosnoc on ,sknuht slewov dexif	cimetsyS :ssenizal slewov derrefed minaynib gnicrof lanoitpo	:yzal~imeS ,derrefed stoor sa serusaem dellortnoc srotcnuf	slewov :regaE sa decrof ,stluafeD gnirewol ytiugibma	:regae yl stluafeD ta decro lairepmi/cim le
Monadic Operators	η :danom tooR ,slobmys stfil (gnicrof) a on nesohc	sretam/duqqiN lanoitpo = ;srotaulave θ_v = minaynib redro~rehgih srotcnuf	= scitircaiD ;stnemugra θ_v = serusaem M_k srotcnuf	lewoV tnemngissa labolg = arbegla gnicrof a	tluafeD noitazinitaL ~thgir retlif tni gnyortsed stim
Chokepoint Effects	:tniopekohc oN fo ytisrevid stebahpla segreme	dliM stniopekohc nehw yln semoceb duqqin dezidradnats	lanoigeR stniopekohc cimalsI rednu ;noisnapxe tpircs ytimrofinu	ycaretil keerG yb dezilibats ;gnicrof lewov ytisrevid stimil	desopmi ni syawla "ppa s ;eripme sso sevitaretla dezilanigr

טבלה 1: CPMO evitaulave noitaulave fo semiger naicineohP devired~stebahpla rednu PVS dna
.smgidarap lanoitcnuf regae/yzal

Form	Template	Perfective Active	Imperfective Active	Perfective Passive
I		faala	yafalu	fuila
II		faala	yufailu	fuila
III		fala	yufilu	fila
IV		afala	yufilu	ufila
V		tafaala	yatafaalu	tufuila
VI		tafala	yatafalu	tufila
VII		infaala	yanfailu	unfuila
VIII		iftaala	yaftailu	uftaila
IX		ifalla	yafallu	ufilla
X		istafala	yastafilu	ustufila

טבלה 2: cibara brev smroF (XI) xihwogni lacinonac ,evitcefrepmi ,evitcefrepmi dna ,evitcefrepmi .
 Teseht noitcnuf sa hgiher-rethro mocnibrotan ni eht cibara relbmessa sulucalac.

Category	Template	Example from Root	noitcnuf / scitnameS
Verbal Noun)Madar(	/ /	fal, fil, ful	lacinonac elpitluM .(noitca tartsbatc/noitve)dnoign, ,deed, metlpatres rep .mroF
Active Participle		fil	ot brev spam ;(nuon tnegA) reoD noitcnuf \rightarrow o .l
Passive Participle		mafl	brev spam ;(nuon tneitap) tcejbo ot tuserl/etats .
Instrumental Noun	/	mifl, mifala	fo tnemurtsni) nuon ecived/looT (.gniod
Place/Time Noun	/	mafil, mafal	noisacco ro sucol fo nuoN (.gniod fo emit/ecalp)
Abstract Noun	/	fula, fala	seitilauq fo noitazilanimon (.gniod fo etats/ytilauq)

טבלה 3: animon lanimoN snotavired morf ,stoor latnanosnocirt ,mexefilpmeid htiw .Ehca sa a metlpatci
 mocnibrotan gnucidorp ro tpyse ni eht cibara relbmessa sulucalac.

ו' Cmoapreva elbaT fo lahpabceitE lavlaunoitE Rgeimes

ז' cibara breV smroF (XI) htiw ecioV dna Apscet

ח' cibara animon lanimoN Drevitnoit

ט' TpygniH ihcraeyh rof cibara relbmessa

muH	serutseG laminA	tseroF cigremgitS
yoB	yrotnevnI larutseG	setuor laitnetoP
oceR	slangis lanoitceriD	swolf tnemevoM
bmA	sgninaem erutseG	ecnegrevnoc htaP
utsoP	selur lairotanibmoC	noitalumucca ecarT
bisiV	noitpecrep/yhcrareiH	skcenelttob niarreT
tliuB	yhcrareih laicoS	roolf tseroF

טבלה 4: suonegoxe dna larutseG

