#    

## 









## 







 uquqqugniu.





















 ununnuņutnhg.

























 úh2ngminnưutiph hnmumumgưuun．

 utnh hnulquumgưuuf．

 Gumumentinnún．





##   ムタヤも8กトかるUも




##  urtuunhghnukpn)

|  |
| :---: |
| Uqkinu (munnuqhu+unnutionhu) |
|  |
| Uunpuqhu |
| Unuku |
| fuiulty |
| fuaqn] |
| ftuq(w)uhhntu |
| Spuiunquiu |
| そ-uly |
| ₹upwuni |
| २.¢ın |
|  |
|  |
|  |
| 2,4-2ppun\$tunn |
|  |
| ७-hnıpnu |
| hqnupnuhıptuqnı |
|  |
| Enunhlumu |
| Lhunıpnu |
| Ownhn |
| ర̌nưp |
| чшüи |
| чwnpumbniu |
| Yupnn\$nu |
| पtijumu |
| पnnuuju |
| Yniupnquau |
| Uuuquiu |
| Uwuqui' (+) l प ¢uumphniu |
| Ukpuphnu |
| Uhıptiqu |
| Ukunu\$nu |
| Ununınnu |
| Bujuiu |
| Clupumpınnghlıınhtipumu (ıhuquu) |
| Clipumpınppnıpunhtu |
| Clipumpınnghlınhlipumu (htipumpınnui) |
| Cluqumupn |












 цnఝnnunıpјuu.

 punăn 5 :






1) mųunuuq.
2) pnıjumuntigh.

3) பunuuquuцn


 nulyunư tu’










4) Juhuun quuniu hnntunh.

5) ph qujniu hnnkiph:
 punıpuqnnn hhưumumu gnıgmûtzutinu tio
6) hnnh hnưnıumjhiu पh6iviln.
7) ppruwhиưumjhu humunipjniuutinn.
8) opuhnuulknulquaquaumu hwunlynıjniuuking.



 hkunlumi gnıgmuhzutinnu'



















 qnunıư 55 úmumpnulunu'

9) 1 - pnijl ntiqnumugumo.






Unjnıumul N 1.1

##  updtpujunıpjniuutipn

| 8nıguiup2utipn |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 |
|  | uhusl 2 | 2-10 | 10-20 | 20-40 | 40-hg wulth |
| łonnłunjuknh, Łnukinh junnnıpjniun <br>  <br>  | uhusu $20$ | 20-40 | 40-100 | $\begin{aligned} & 100- \\ & 200 \end{aligned}$ | 200-hg wulth |
|  <br>  pumbueu qnuluntion unhuhi punnn2 gnıguuntzukiph htion) | uhusl 5 | 5-15 | 15-25 | 25-32 | $\begin{aligned} & \text { 32-hg } \\ & \text { wulkhe } \end{aligned}$ |
|  | $\begin{aligned} & \text { 1.0-hg } \\ & \text { wulthen } \end{aligned}$ | 0.3-1.0 | 0.1-0.3 | 0.01-0.1 | uhuslu 0.01 |
|  umbkntiuh ulquanưuúp | uhusl 5 | 5-15 | 15-35 | 35-70 | 70-hg wulth |
|  <br>  unuphu punnn2 hqnpnıpjuu hkun) | úhusl 3 | 3-25 | 25-50 | 50-75 | $\begin{aligned} & \text { 75-hg } \\ & \text { wytheh } \end{aligned}$ |
|  | Uhush 10 | 10-20 | 20-40 | 40-80 | 80-hg wullh |
|  uұuqnıu ( $\mathrm{Mn}, \mathrm{Co}, \mathrm{Mo}, \mathrm{B}, \mathrm{Cu}, \mathrm{Fe}$ ), unnlnu | uhusk 10 | 10-20 | 20-40 | 40-80 | 80-hg wulth |
|  uyuqqnư, unnlunu | Uhǔ̧ 10 | 10-20 | 20-40 | 40-80 | 80-hg wulkh |
|  ùuqqnư, unlynu | Uhusk 10 | 10-20 | 20-40 | 40-80 | 80-hg wulth |
|  | uhusl 10 | 10-15 | 15-20 | 20-25 | 25-hg wulth |
|  un(hw)/ununh | uhusl 5 | 5-25 | 25-100 | $\begin{aligned} & \hline 100- \\ & 200 \end{aligned}$ | 200-hg wulth |
|  <br>  umblinkung | 0-2 | 2-5 | 5-10 | 10-25 | $\begin{aligned} & \text { 25-hg } \\ & \text { wulthh } \end{aligned}$ |
| Łnnqhujh kupunlццшд pumhnnknh úmhknkuh wulk wignus, unlınu unuptilumu | $\begin{gathered} \text { uhušu } \\ 0.5 \end{gathered}$ | 0.5-1.0 | 1.0-2.0 | 2.0-5.0 | 5.0-hg wulth\|h |
|  qnndulyhg | uhuslu 0.1 | 0.1-0.3 | 0.3-0.7 | 0.7-2.5 | $\begin{aligned} & \text { 2.5-hg } \\ & \text { wulkh } \end{aligned}$ |
|  hqnpnıpjniun, uu | uhusl 2 | 2-10 | 10-20 | 20-40 | 40-hg wully |
|  <br>  | Uhusk 10 | 10-30 | 30-50 | 50-70 | 70-hg wulthe |
|  unquaumytin 2 tinunnư, unlınu |  |  |  |  |  |
| - unqujh hwılunưuúp | ưhųl 0.1 | 0.1-0.2 | 0.2-0.3 | 0.3-0.5 | 0.5-hg uully |
|  | unhusl 0.1 | 0.1-0.25 | 0.25-0.5 | 0.5-0.8 | 0.8-hg uulth |

##  



 hhưưu पnu:
 huưuaàmju (1) pumuaălu.

$$
\begin{equation*}
H_{l b}=C / C_{\phi} \quad \text { पwuर } \quad H_{l u}=C / C_{U \partial \neg t u} \tag{1}
\end{equation*}
$$

nnukin'






$$
\begin{equation*}
H_{3 h}=\sum C_{h} / C_{3 h} \tag{2}
\end{equation*}
$$

nnukin'





$$
\begin{equation*}
K_{\mathcal{L}}=\left(A-A_{C}\right) / A_{\mathscr{B}} \tag{3}
\end{equation*}
$$

nnuntry＇

\＄numjhu unņăưưnızukinnıu：



Unjniumul N 2


| ＜nntinh punıpuqhpiu nuen uqununりまぁnıpjui | Uwuhnnupulqui phyn |
| :---: | :---: |
| Uupnıp | 0，98 l wulkh |
|  | 0，85－hg ưhu̧̧ 0，98 |
| Uұunnuluд | 0，7－hg uhǔl 0,85 |
|  | 0，7－hg umumu |





Unjniumul N 3




| Ununnunumu quentaqnhhuiu | Uuuhunur nulyuu əhप！ | Uqunnu－ ưuu qnuưu－ nuyhu gnıguubh2n |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  1－hú quu |  |  2－nף quu |  |  3－рп quu |  |
|  |  |  | ```onquuum- quu uhugnt- PJniu``` | wuonqu－ umbuu úhugnı－ puniu | ```onquium- quu upugnt- pjniu``` | wuonqu－ umlumu ưhugnt－ puniu | onquium－ quiu úhugnt－ pjniu | wionque－ umumu uhugnt－ pjniu |
| Uu\ınuiuq | 0，98 u nnwuhg ưち | － | \＄numuhu undtiphg ưhųl UßトU | \＄numuhu undtiphg úhush UßケU | \＄numujh undtiphg úhųl Ußケu | \＄numugh undtphg úhųl UAIU | \＄numuku undtiphg ưhusl UAH | \＄numuku undtphg úhǔ̧ Ußfu |


| Ørisfuuntuh | 0，98 l nnwuhg ưt | 16－hg ఛṇn | 1－hg úhǔl 2 UんH | \＄numugh 2 undtuph uhuslu UßケU | 1－hg uhbus 2 UOHU | \＄numuku 2 undtiphg ưhusl UßłU | 1－hg ưhush 2 Ußfu | \＄numuhu 2 wndtphg ưhus UßIU |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2ựuఝn ùnuuquuln | 0，85－hg úhųh 0.98 | $\begin{gathered} \text { 16-hg } \\ \text { uhush } 32 \end{gathered}$ | 2－hg úhusk 5 UOH | UßFu－hg ưhusl $\mathrm{L}_{\text {wnul }}$ | 2－hg úhusk 5 Uんfu | Ußłu－hg uhusk $\mathrm{L}_{\text {wnul }}$ | 2－hg uhúll 5 Uafu | Uß－fu－hg ưhusl $\mathrm{L}_{\text {wnuw }}$ |
| Ч．unuuqu |  |  |  |  |  |  |  |  |
| n | $\begin{gathered} \hline 0,7-\mathrm{hg} \\ \text { uhusl } \\ 0.85 \\ \hline \end{gathered}$ | $\begin{gathered} \text { 32-hg } \\ \text { uhusl } 128 \end{gathered}$ | 2－hg uhuck 5 Uß4 | UOFu－hg ưhusl $\mathrm{L}_{\text {unuw }}$ | 2－hg úhǔl 5 Uß4 | Ußケu－hg ưhush $\mathrm{L}_{\text {wnuw }}$ | úti 55 UんFu－hg | Uß゙o－hg ưhusl $\mathrm{L}_{\text {umul }}$ |
| fuhuu unumquaunn | ழnnp 5 <br> $0,7-\mathrm{hg}$ | utith <br> $128-\mathrm{hg}$ | 5Uمłuhg punăn |  | ukみち 5 <br> UんHu－hg | $\begin{gathered} \begin{array}{c} \text { uth } \partial \zeta \\ \mathrm{G}_{\text {umuul }}-\mathrm{hg} \end{array} \end{gathered}$ | びみちち5 UんH－hg | $\begin{gathered} \begin{array}{c} \text { uft } \partial \zeta \\ \mathrm{U}_{\text {unuul }}-\mathrm{hg} \end{array} \end{gathered}$ |






 hưưuămju N 4 wŋjnıuшulh．

Unınıumul N 4

| Uwuhиnupmumu <br>  wuluunnun |  |  |  |
| :---: | :---: | :---: | :---: |
|  | qлnıŋumúnkumumu ǔmumbnipjuiu hnntin | upnjnitumptipnipjuiu l wJl wnununnuluwu uquiumlnıpjuiu hnntin | 5ukiqqkinhlump， ипшшиuún दшuyh，दnufnium kupulqunnıgцuддриtph onjtuquutinh hnnkn |
| Uuuhnnunulyuu phy | － | － | － |
| Uqnun－uưnuhwumuhu | $\pm$ | $\pm$ | － |
| Uqnun－uhunpuunujhu | $\pm$ | $\pm$ | － |
| f．nnhnulin | $\pm$ | $\pm$ | － |
| pH | $\pm$ | $\pm$ | $\pm$ |
| Ttuunhghnutip | ＋ | $\pm$ | － |
| Owun Ukununukip | $\pm$ | ＋ | ＋ |
| ঢwup l umu｜puuptnp | ＋ | ＋ | ＋ |
| Sunnn \＄tunjukn | $\pm$ | ＋ | $\pm$ |
| Y－hinkinquanukip | ＋ | ＋ | － |
| ठठúnujhu ưmagnıpjniuukin | $\pm$ | $\pm$ | ＋ |
| Пınnıgpuøhi ujnıp＜n | ＋ | ＋ | ＋ |
| Unuku | ＋ | ＋ | ＋ |
| Tnıhpınnuguш ph\＄tuhpukn | $\pm$ | $\pm$ | $\pm$ |


| 3hwuhnutip | ＋ | ＋ | ＋ |
| :---: | :---: | :---: | :---: |
| ก－unhnnulunhり ¢jnıptun | ＋ | ＋ | ＋ |
| Uwlınnphưwhumu l uhlpnnphunuluwu <br>  | － | － | － |
| Lwlunnqnnnuluwu unhpuejhu gnıuphuutn （Ynıh ălutn） | ＋ | ＋ | ＋ |
|  | ＋ | ＋ | ＋ |
| ＜humuquøhu ûhlın nonquuuhqưutin | ＋ | ＋ | ＋ |
| Chuchupbuknh ăuhlubut u pnpnıpulin | ＋ | ＋ | ＋ |
| Unhpujhi úhumghquknh ghuuntin | ＋ | ＋ | ＋ |
|  pnpnınutur u hunuujulyutp | $\pm$ | $\pm$ | $\pm$ |
|  |  |  |  |

