## Swahili Solution

tarehe tatu Disemba jumamosi
Three December day-one
(Saturday)
tarehe pili Aprili jumanne
Two April day-four
(Tuesday)
tarehe nne Aprili jumanne
Four April day-four
(Tuesday)
tarehe tano Oktoba jumapili
Five October day-two
(Sunday)
tarehe tano Oktoba jumatatu
Five October day-three
(Monday)
tarehe tano Oktoba jumatano
Five October day-five
(Wednesday)

| a. Monday, October $5^{\text {th }}$ |
| :--- |
| b. Wednesday, October $5^{\text {th }}$ |
| c. Sunday, October $5^{\text {th }}$ |
| d. Tuesday, April $2^{\text {nd }}$ |
| e. Tuesday, April $4^{\text {th }}$ |
| f. Saturday, December $3^{\text {rd }}$ |

Hint: Start with December, because there is only one. "tatu" must be three.
"Jumamosi" must be Saturday.
There are two April's. They are both Tuesday, so "jumanne" must be Tuesday. "pili" is two or four and "nne" is two or four. Tricky spot: you might think that "nne" is two and that "jumanne" is "day 2 ", but it isn't. "pili" is two and "nne" is four. (Saturday is day 1.)

There are three Octobers, and they are all the $5^{\text {th }}$, so "tano" is five. "jumapili", "jumatatu", and "jumatano" can be Monday, Wednesday, and Sunday.

Suppose we haven't figured out "pili" and "nne" yet. We know that "tano" is three. So is "jumatano" Monday, Wednesday, or Sunday?

Suppose we fall for the bait and decide that "nne" is two and "jumatano" is Tuesday, and since "tano" is three, "jumatano" is Wednesday.
"Pili" would have to be "four", and the fourth day would have to be "Thursday", but there is no "Thursday" in the data.

So we back up. As implausible as it seems, "nne" is four. Tuesday is the fourth day. "pili" is two.

If Tuesday is the fourth day, then Sunday is the second day "jumapili".
The third day "jumatano" is Monday.
The first day "jumatatu" is Saturday. (The Moslem Sabbath is Friday.)

## Tajik Solution

дуусти хуби хамсоай сумо
хамсоай дуусти хуби сумо хамсоай хуби дуусти сумо

дуусти friend
хамсоай neighbor
хуби good
сумо your
a good friend of your neighbor
a neighbor of your good friend
a good neighbor of your friend

Hint: "good friend" occurs in two of the sentences and not in the third.

## Indonesian Solution

Satu ditambah satu menjadi dua.
One plus one equal two

Dua ditambah dua menjadi empat.
Two plus two equal four

Delapan belas dikurangi satu menjadi tujuh belas.
Eight plus-ten minus one equal seven plus-ten Tiga ditambah empat menjadi $\qquad$ .

Satu ditambah dua menjadi tiga.
One plus two equal three
Dua dikalikan dua menjadi empat.
Two multiply two equal four

Enam dikurangi tiga menjadi tiga.
Six minus three equal three
Sepuluh dikurangi enam menjadi empat.
Ten minus six equal four
Dua dikalikan tiga menjadi lima.
wrong
Sepuluh dibagi dua menjadi lima.
Ten divide two equal five
Tiga dikalikan enam menjadi delapan belas.
Three multiply six equal eight plus-ten

Tiga dikalikan tiga menjadi sembilan.
Three multiply three equal nine
Sepuluh ditambah sembilan menjadi
$\qquad$
Sembilan belas
Dua puluh dibagi dua menjadi $\qquad$ .
sepuluh
Tiga puluh dibagi lima menjadi enam.
Three times-ten divide five equal six
Tujuh puluh dibagi dua menjadi $\qquad$ .
Tiga puluh lima
Enam belas dibagi dua puluh empat menjadi dua per tiga.
Six plus-ten divide two times-ten four equal two by three

Now write out these numbers (and one fraction) in Indonesian:
$\left.\begin{array}{lllll}7 & \square & 12 \\ 23 & 39 & \square & 19 \\ 3 / 4\end{array}\right]$

Rewrite the incorrect statement so that it's correct:

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one satu
two dua
three tiga
four empat
five lima
six enam
seven tujuh
eight delapan
nine sembilan
ten sepuluh
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## Yaqui solution:

H Inepo siika.
A Empo nee aniak.
F Inepo apo 'ik aniak.
D Inepo apo'ik vichak.
C Inepo enchi vichak.

E Inepo enchi aniak.
B Empo ye'ek.
G Aapo enchi vichak.

| a. You helped me. |
| :--- |
| b. You danced. |
| c. I saw you. |
| d. I saw him. |
| e. I helped you. |
| f. I helped him. |
| g. He saw you. |
| h. I left. |


| inepo | I nom |
| :--- | :--- |
| nee | me acc |
| empo | you nom |
| enchi | you acc |
| aapo | he nom |
| apo'ik | he acc |
|  |  |
| ye'ek | danced |
| vichak | saw |
| aniak | helped |
| siika | left |

## Luvian Solution

| 1. | $\because \mathbb{B} \cdot A$ | Varpalava king |
| :---: | :---: | :---: |
| 2. |  | Kurkuma city |
| 3. |  | Tuvarnava city |
| 4. | $\mathbb{H} D \in A A$ | Palaa region |
| 5. | $\checkmark \leftrightarrow \infty \text {, } \because N$ | Tarkumuva king |

## Hawaiian Solution

A: There are two possible English translations for the following Hawaiian sentence. What are they?

Aohe ou kaikuaana. I have no elder brothers (Keone/male speaking) 2) I have no elder sisters (Mele/female speaking)

B: Translate the following sentence into English and indicate who is speaking, Mele or Keone:

Aohe ou kaikuahine. 'I have no sisters' (Keone speaking.)
C. The following English sentences would be difficult to translate directly into Hawaiian. Explain why this is true.

Keone has one brother: Because in Hawaiian, the word for the brother of a boy and a sister of a girl are the same, and they are always distinguished according to age - younger or older. Thus there is no way to say "Keone" has one brother in Hawaiian without saying whether the brother is younger or older.

Mele has one younger brother: The words for brother of a girl and sister of a boy are not distinguished by age. So you could easily say 'Mele has one brother,' but not 'Mele has one younger brother' given the words available in this problem.

