

Problem 4 (20 points). Here are some Ngkolmpu numbers:

- 1 **aempy**
- 8 **ynaoaempy ptae**
- 17 **tamp tarwmpao**
- 21 **ylla ntamnao**
- 35 **tamp ptae wramaekr**
- 64 **eser wramaekr ptae**
- 167 **tamp ntamnao ptae eser**
- 294 **tarwmpao ptae ptae ynaoaempy**
- 504 **tarwmpao ynaoaempy ptae ynaoaempy**

- (a) Two of the Ngkolmpu numbers above can each be interpreted one additional way not given.
- Which are these numbers?
 - What are their alternative interpretations?

- (b) Below are some arithmetic equalities expressed in Ngkolmpu. All numbers that appear in the equalities are positive integers.

- [1] **tamp ptae wramaekr ptae tamp – eser ntamnao** = _____ (A)
- [2] **ylla ptae ylla + _____ (B) _____** = **tarwmpao**
- [3] **ntamnao ptae × eser wramaekr = ntamnao ntamnao + _____ (C)**

Fill in the blanks (A–C) and write the equalities in numerals.

⚠ (C) < 200

- (c) Give all possible interpretations of the following number:

tarwmpao ylla ptae

⚠ Ngkolmpu belongs to the Yam family. It is spoken by approx. 100 people in Papua province, Indonesia. — *Ji Hun Wang, Minkyu Kim*

The remainder of this page is intentionally left blank.