

**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*

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