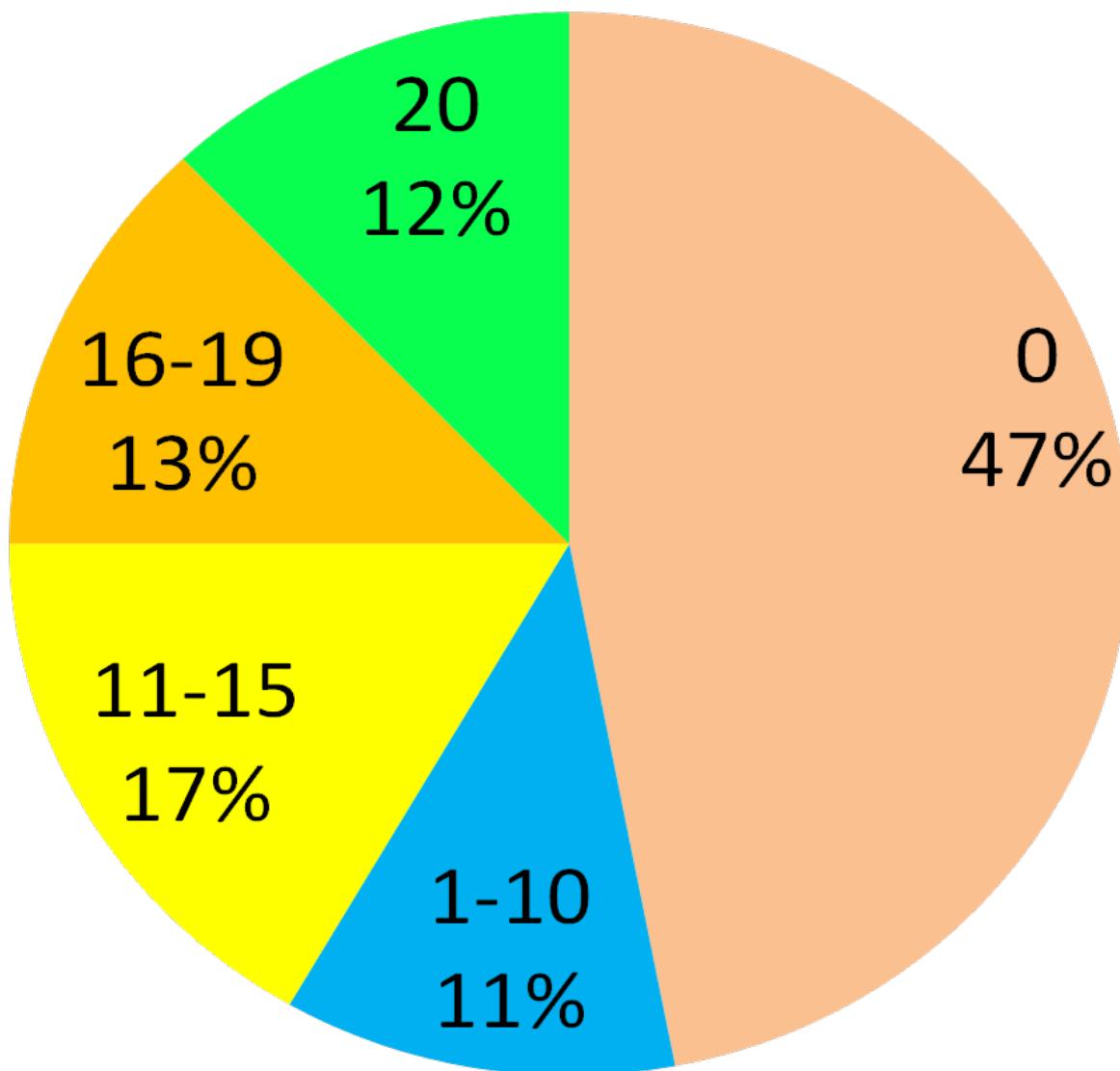


# Problem №2 Umbu-Ungu

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# Distribution of solvers by result



69 = **tokapu talu** tokapunga telu

48 = **tokapu talu**

21 = **tokapunga telu**

79 = tokapu talu polangipunga yepoko

48 = tokapu talu

31 = **polangipunga yepoko**

30 = polangipunga talu

15 = malapunga yepoko	$15 \equiv 3 \pmod{4}$
27 = alapunga yepoko	$27 \equiv 3 \pmod{4}$
35 = tokapu rureponga yepoko	$35 \equiv 3 \pmod{4}$
79 = tokapu talu polangipunga yepoko	$79 \equiv 3 \pmod{4}$

**yepoko = 3**

**talu = yepoko-1 = 2**

**telu = 1**

$48 = \text{tokapu talu} \rightarrow \text{tokapu} = 24$

$40 = \text{tokapu malapu}$

$16 = \text{malapu}$

$24 = \text{tokapu}$

$15 = \text{malapunga yepoko}$

$21 = \text{tokapunga telu}$

$$\rightarrow \alpha - \text{nga } \beta = (\alpha - 4) + \beta$$

48 = tokapu talu

50 = tokapu alapunga talu

69 = tokapu talu tokapunga telu

79 = tokapu talu polangipunga yepoko

$$\rightarrow \gamma + \delta$$

$$\gamma = 24k; k \in \{1; 2; 3\},$$

$$9 \leq \delta \leq 32; \delta \neq 24$$

base-4 system

12 *rurepo*

16 *malapu*

20 *supu*

24 *tokapu*

28 *alapu*

32 *polangipu*

1 *telu*

2 *talu*

3 *yepoko*

base-24 system

*tokapu* = 24

*tokapu talu* =  $24 \times 2 = 48$

*tokapu yepoko* =  $24 \times 3 = 72$

$$\alpha\text{-}nga \beta = (\alpha - 4) + \beta,$$

$$\alpha \in \{12; 16; 20; 24; 28; 32\}$$

$$\beta \in \{1; 2; 3\}$$

$$\gamma + \delta$$

$$\gamma = 24k; k \in \{1; 2; 3\},$$

$$9 \leq \delta \leq 32; \delta \neq 24$$

(a)

$$tokapu polangipu = 24 + 32 = \mathbf{56},$$

$$tokapu talu rureponga telu =$$

$$24 \times 2 + 12 \text{ nga } 3 = \mathbf{57},$$

$$tokapu yepoko malapunga talu =$$

$$24 \times 3 + 16 \text{ nga } 2 = \mathbf{86},$$

$$tokapu yepoko polangipunga telu =$$

$$24 \times 3 + 32 \text{ nga } 1 = \mathbf{101}.$$

(b)

$13 = 16$ nga 1 = ***malapunga telu***,

$66 = 24 \times 2 + 20$ nga 2 =

***tokapu talu supunga talu***,

$72 = 24 \times 3 =$  ***tokapu yepoko***,

$76 = 24 \times 2 + 28 =$  ***tokapu talu alapu***,

$95 = 24 \times 3 + 24$ nga 3 =

***tokapu yepoko tokapunga yepoko.***

A coastal landscape featuring sand dunes on the left, a river mouth where water meets the sea in the center, and a large plume of dark smoke rising from a distant point on the right side of the frame. The sky is filled with scattered clouds.

**Thank you!**