



*People only believe when they are interested.  
Better to leave before you make them bored.  
«The Little White Horse» Elizabeth Goudge*

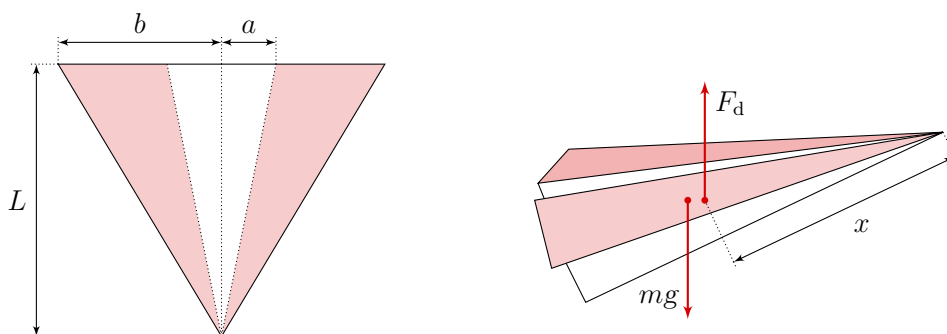
## Epilogue

Each of us made paper airplanes and watched them fly. We often remember that wonderful time and now invite you to remember it with us.

### The task

Let's create an airplane from A4 paper. Its net is presented in the figure, the ratio of technical characteristics is as follows:

$$\frac{a}{L} = \frac{2}{15}; \quad \frac{b}{L} = \frac{8}{15}.$$



Lift force, gravity force, and drag force (can be neglected) act on an airplane when it flies horizontally. Let the point of application of the lift force be at a distance  $x$  from the nose of the plane.

1. Investigate the dependence  $x(L)$  for at least 15 lengths  $L$  with  $L > 8,0$  cm. Plot a graph of this dependence.
2. Assuming  $x = \xi L$ , find  $\xi$ .

*Equipment.* A4 paper (basis weight  $\sigma \approx 80$  g/m<sup>2</sup>), scissors, ruler and whatever you want.

First hint — 07.06.2021 14:00 (GMT+3)

Second hint — 08.06.2021 14:00 (GMT+3)

The Finals of the LPR Cup — 11.06.2021 12:00 (GMT+3)