Hint 2

1. You can continue to send the solution to the main problem.
2. At any time before the final deadline, you can switch to *alternative task*. If you do this, write *a*t the very beginning of the solutionI'm moving on to an alternative task!. In this case, you get an additional coefficient of 0.7, which is multiplied by the old coefficient, and the solutions to the main problem are not checked from this point on. Be careful!
3. The task consists of several items. The penalty multiplier earned by **before** is applied to all points. In the future, each item is evaluated as a separate task. If you send a solution without any item, this item's solution is considered as Incorrect. For more information about scoring points for composite tasks, see the rules of the Cup.

Alternative problem

1. (*2 pts*) The boat moves parallel to the shore of the lake at a velocity of V. The wave propagation velocity on the water surface is $U < V$. Figure the initial and final position of the boat after time t and the areas occupied by wave fronts that arose at the initial time and at time $t/2$. Analyze the figure. In a separate figure, depict the initial and final position of the boat, and the area occupied by the waves that arose during the movement.
2. (*4 pts*) The boat moves parallel to the lake at a speed of V at a distance of L from the shore. The experimenter Gluck, standing on the shore of the lake, saw a boat at a time when the distance between it and the boat was minimal. Gluck noticed that the wave reached him after time t. Determine the speed of the boat if the wave propagation velocity over the surface of the water is $U < V$.
3. (*4 pts*) Two supersonic planes fly towards each other at speeds of v_1 and v_2 along parallel paths spaced at a distance of L. How much time will pass from the moment when the distance between the planes was minimal to the moment when the sound from one plane reached to the other one? Consider both cases.