



## Problem of the Week

### Problem A

### International Jumping Relay

The International Jumping Relay Race will take place this year. In the race, each team has four members. The first member of each team starts the race and jumps until they tag the next member of their team. When a team member is tagged, they start jumping towards the next team member to tag them, except for the last team member who starts jumping towards the finish line.

BeHappy Bunny and Kicky Kangaroo are on different teams and will each be jumping in the last leg of the race. They are waiting 24 m away from the finish line for their teammates to tag them.

BeHappy Bunny is tagged first, and jumps three times before Kicky Kangaroo is tagged. Bunny's fourth jump and Kangaroo's first jump happen at the same time. BeHappy Bunny leaps 2 m forward with every jump, Kicky Kangaroo leaps 3 m forward with every jump, and the two animals take off and land at the same time on each jump.

- Which animal will get to the finish line first? Justify your answer.
- Will the two animals ever land at the same spot (not necessarily at the same time)? If so, how far away from the finish line are these spots?

