For secondary students

X marks the spot

Extend your algorithmic thinking

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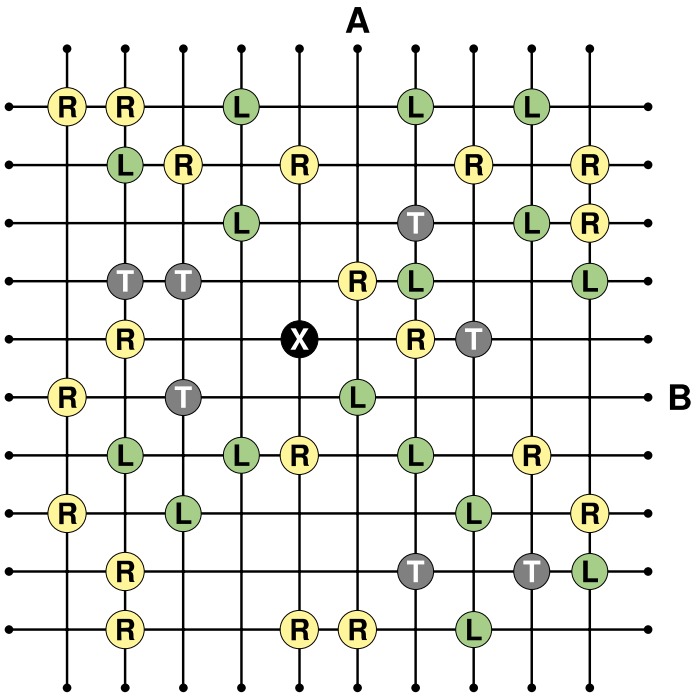
A robot is programmed to follow the grid lines shown below, starting at one of the small dots on the boundary. Whenever it comes to an intersection marked **R**, **L** or **T**, it immediately makes a 90° right turn, 90° left turn or 180° about turn, respectively, and then continues on its way along the grid. If the robot arrives at one of the boundary dots or the intersection marked **X**, it stops.



A. The robot starts at the boundary dot marked **A**. How many right turns does it make before stopping?

B. The robot starts at the boundary dot marked **B**. How many times does it pass through an empty intersection before stopping?

C. How many starting positions result in the robot arriving at **X**?

Find the solution

Challenge your thinking

Bebras
BEBRAS COMPUTATIONAL THINKING CHALLENGE
Round 1: 23 April to 9 May
Round 2: 8 to 24 October

CAT.
COMPUTATIONAL AND ALGORITHMIC THINKING
21 to 23 May

OUCC.
OXFORD UNIVERSITY COMPUTING CHALLENGE
Round 1: 18 to 20 June
Round 2: 1 August

AIO.
AUSTRALIAN INFORMATICS OLYMPIAD
29 August

Don't have your phone? Take one to find the solution

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