

Kinematics Maze: Displacement, Velocity and Acceleration

Students in Physics 20 describe motion in terms of displacement, velocity, acceleration and time ([Topic](#)). This maze game reinforces understanding of key kinematic quantities and their relationships. As students navigate the puzzle, they apply their knowledge of scalar and vector quantities ([Outcome](#)), uniform and uniformly accelerated motion ([Outcome](#)), and the operational definitions that distinguish these concepts ([Outcome](#)). The game suits independent or partner work during a unit review or as a formative checkpoint before problem-solving practice.

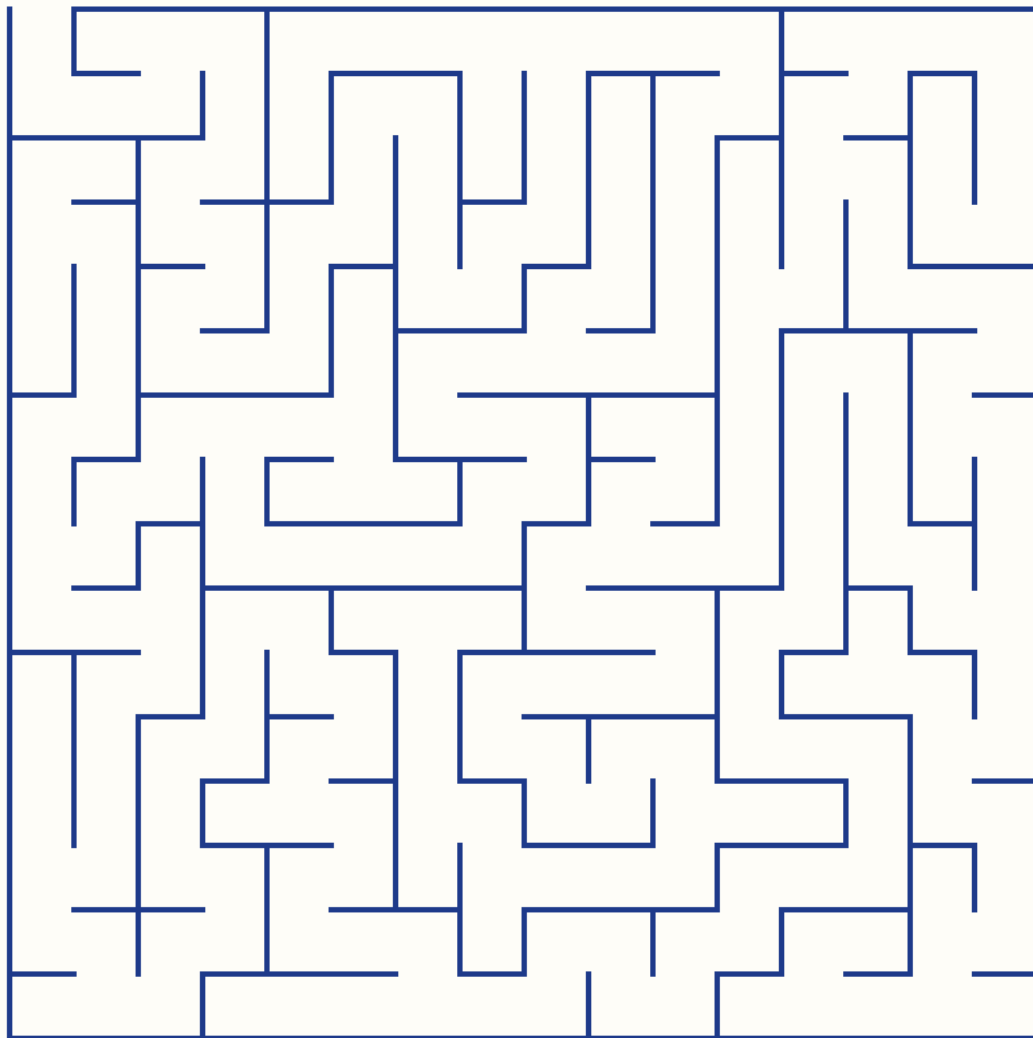
How to play

- Start at the marked entrance and draw one path through the open corridors to the marked exit.
- Never cross a wall. If you reach a dead end, go back and try another way.
- The shortest path passes through 135 cells. The answer key shows it in colour.

The maze

Kinematics Maze: Displacement, Velocity and Acceleration

START



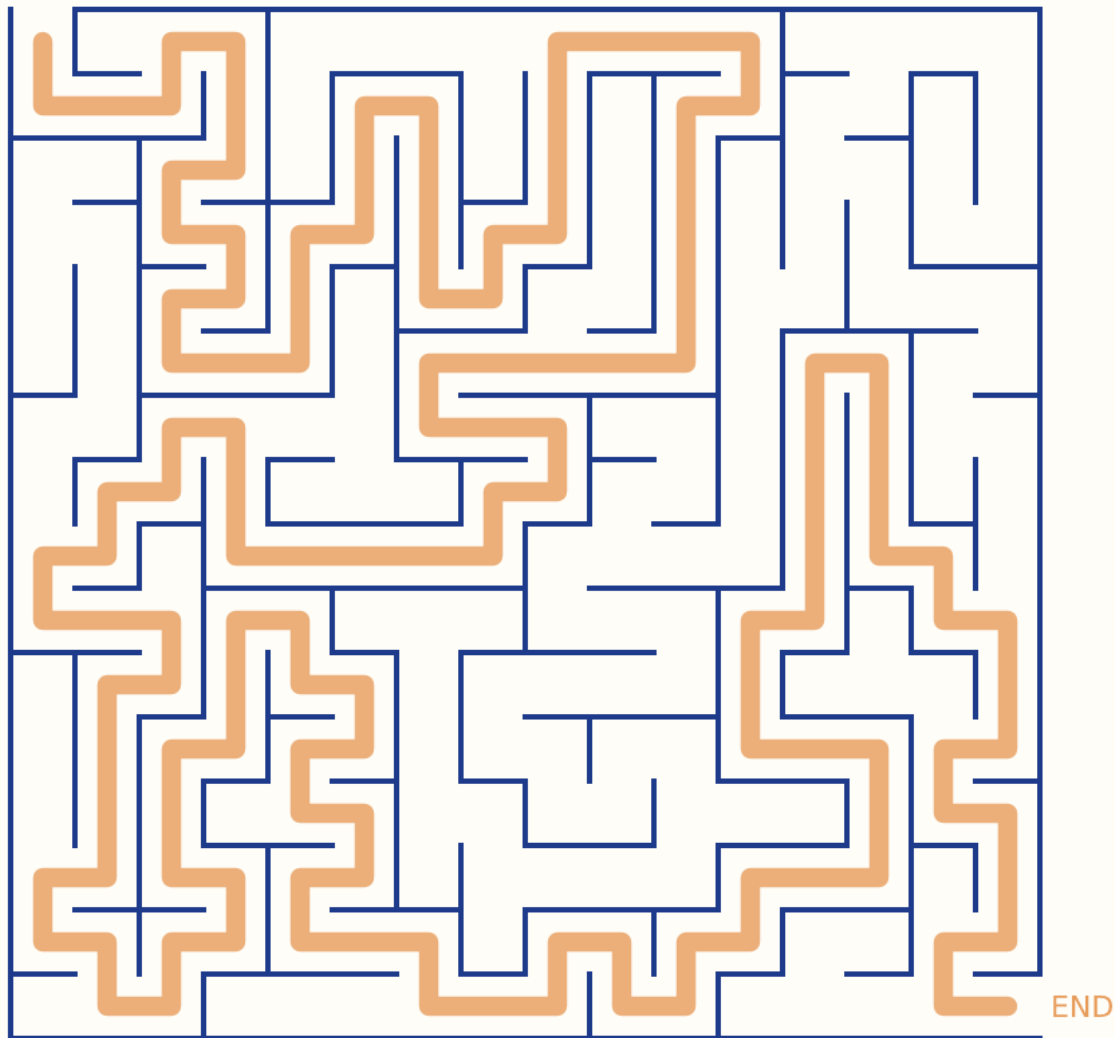
END

Maze

Answer key

Kinematics Maze: Displacement, Velocity and Acceleration (solution)

START



END

Maze solution

Path: down 1, right 2, up 1, right 1, down 2, left 1, down 1, right 1, down 1, left 1, down 1, right 2, up 2, right 1, up 2, right 1, down 3, right 1, up 1, right 1, up 3, right 3, down 1, left 1, down 4, left 4, down 1, right 2, down 1, left 1, down 1, left 4, up 2, left 1, down 1, left 1, down 1, left 1, down 1, right 2, down 1, left 1, down 3, left 1, down 1, right 1, down 1, right 1, up 1, right 1, up 1, left 1, up 2, right 1, up 2, right 1, down 1, right 1, down 1, left 1, down 1, right 1, down 1, left 1, down 1, right 2, down 1, right 2, up 1, right 1, down 1, right 1, up 1, right 1, up 1, right 2, up 2, left 2, up 2, right 1, up 4, right 1, down 3, right 1, down 1, right 1, down 2, left 1, down 1, right 1, down 2, left 1, down 1, right 1