

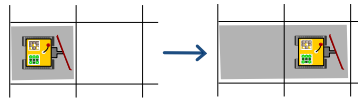


Winter rescue mission



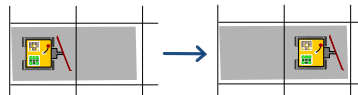
After a snowstorm, Inuit want their four igloos connected to the main road system again. A robotic snowplough is given the task to clear the path. The robot does not need to go to an igloo, just clear the square in front of its entrance. The robot can not travel diagonally. The robot needs to return to its starting square after clearing the path.

It takes 2 hours to move from a cleared square to a square with snow, and clear that square.



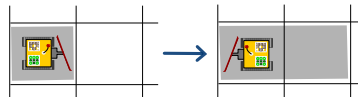
2 hours

It takes 1 hour to move from a cleared square to another cleared square.

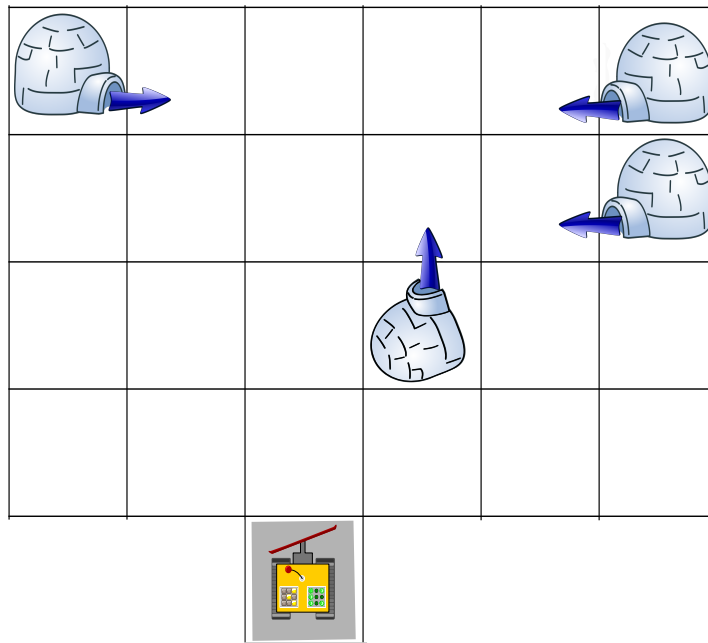


1 hour

It takes no time for the robot to turn around in a cleared square.



3 hours



QUESTION

What is the minimum time the robot needs to accomplish the task?

- A. 22 hours
- B. 23 hours
- C. 24 hours
- D. 25 hours

Computational thinking resources for teachers by Maynooth University – pact.cs.nuim.ie
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