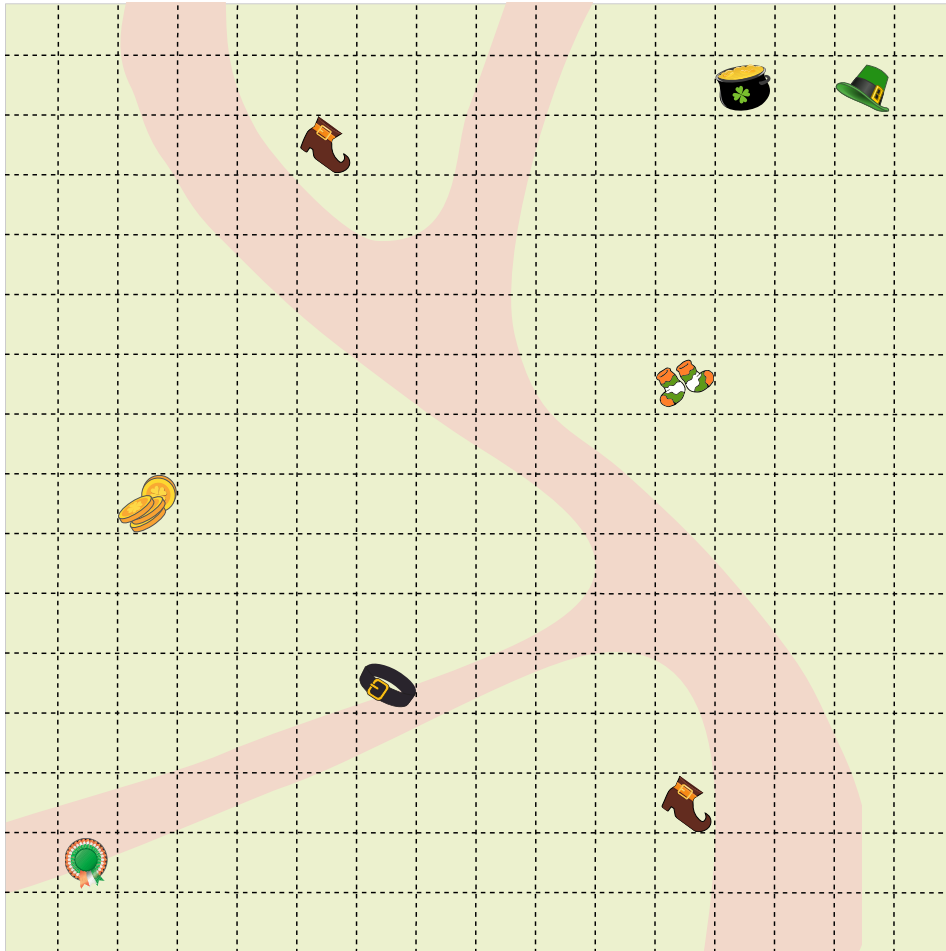




# Leprechaun's stuff



All of a leprechaun's belongings are scattered about the park shown below. A robot will pick up the leprechaun's stuff. The park is a  $16 \times 16$  grid.



The robot must divide the entire park into square regions of sizes  $1 \times 1$ ,  $2 \times 2$ ,  $4 \times 4$  or  $8 \times 8$  so that each part of the park will be in exactly one square region. Each square region must be either empty or contain exactly one piece of the leprechaun's stuff.

## QUESTION

What is the smallest possible number of square regions that the park can be divided into?

- A. 9
- B. 13
- C. 16
- D. 64

Computational thinking resources for teachers by Maynooth University – [pact.cs.nuim.ie](http://pact.cs.nuim.ie)  
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