

HW 10.5: 10, 14, 26 (a, b, c)

10.5

10) Can someone cross all the bridges shown in this map exactly once and return to the starting point?

Yes, there exists a Euler circuit in the graph because all the vertices had an even degree.

14) In Exercises 13–15 determine whether the picture shown can be drawn with a pencil in a continuous motion without lifting the pencil or retracing part of the picture.

The graph has two vertices of odd degree, g and n , telling us that there exists a Euler path in the graph. Therefore, yes, it is possible to draw it in one continuous motion.

26) For which values of n do these graphs have an Euler circuit?

a) K_n

$n = \text{odd integers, where the integer is not a negative number or } 0.$

b) C_n

$n \geq 3$

c) W_n

n does not work for any value.