Introduction to Graph Theory

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Ch. 8 Solutions

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1 Use Exercise 11 of Chapter 2 to prove that every graph has an even number of odd vertices.

2 Find all integers $v \geq 2$ for which

a) K_v has an open euler walk.

b) K_v has an closed euler walk.

c) K_v has an open hamilton walk.

d) K_v has an closed hamilton walk.

3 Explain why each drawing in Figure 155 are either bad or good puzzles.

4 Let C be a graph with $v = 64$, its vertices corresponding to the squares of a chess board. Let two vertices of C be joined by an edge whenever a knight can go from one of the corresponding squares to the other in one move. Does C have an euler walk? (You don't have to draw C to answer.)