Show All Solutions

Rosen, Discrete Mathematics and Its Applications, 7th edition
Extra Examples
Section 10.5—Euler and Hamilton Paths

Extra Examples — *Page references correspond to locations of Extra Examples icons in the textbook.*

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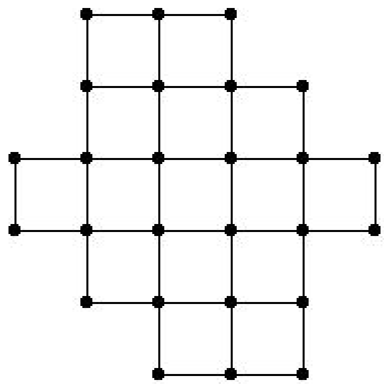
p.694, icon at Example 2
#1. Determine whether the following graph has an Euler circuit or Euler path.



See Solution

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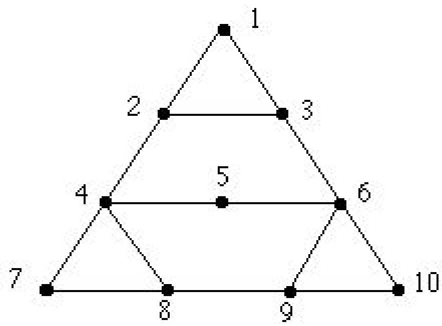
p.694, icon at Example 2
#2. Determine whether the following graph has an Euler circuit or Euler path.



See Solution

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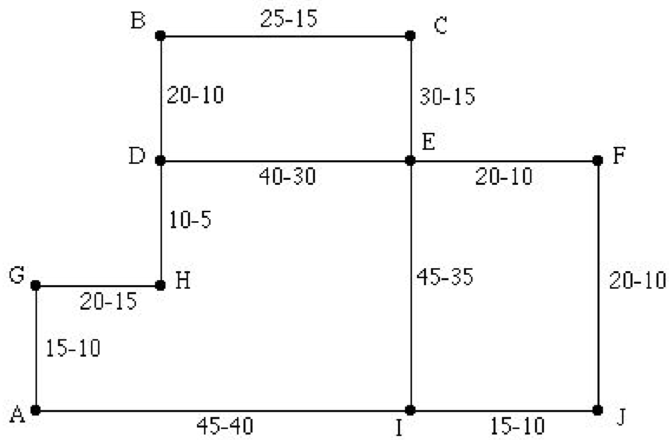
p.694, icon at Example 2
#3. *The Chinese Postman Problem*: The following graph shows the streets along which a mail carrier

must deliver mail. Each street segment has a label consisting of two numbers: the first number gives the time (in minutes) that it takes for the mail carrier to deliver mail along that street; the second number gives the time (in minutes) that it takes the mail carrier to walk along that street without delivering mail. What is the minimum total length of time required to start from point A, complete mail delivery along all the streets in the map, and return to A?

Note: A further discussion of this problem and similar ones can be found on this website in Chapter 20 of *Applications of Discrete Mathematics*.



See Solution

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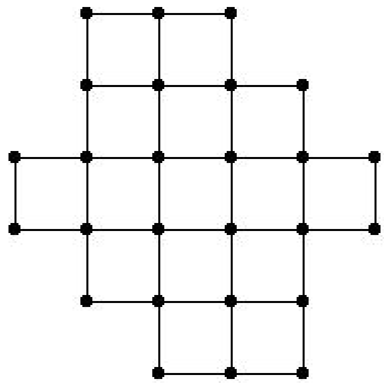
p.699, icon at Example 5

#1. Determine whether the following graph has a Hamilton circuit or Hamilton path.



See Solution

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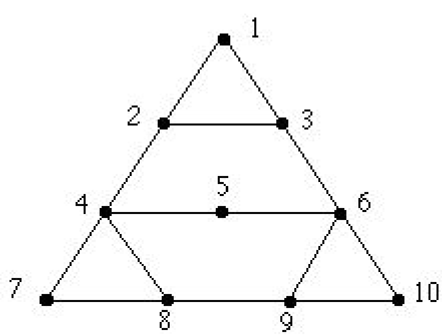
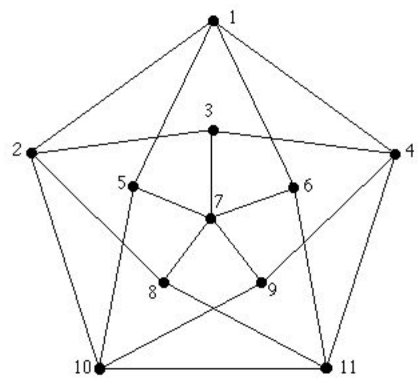
p.699, icon at Example 5
#2. Determine whether the following graph has a Hamilton circuit or Hamilton path.



See Solution

p.699, icon at Example 5

#3. Find a Hamilton circuit in the graph at the right, called the Grötzsch graph.



See Solution