

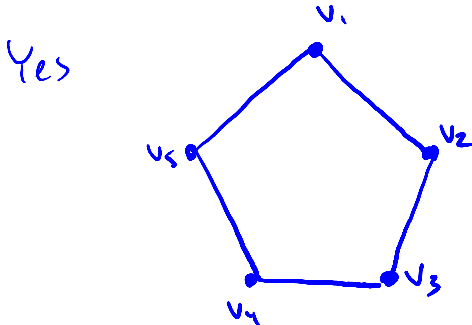
Math 270 - Basic Discrete Mathematics
Practice Quiz on Section 4.9

Solutions

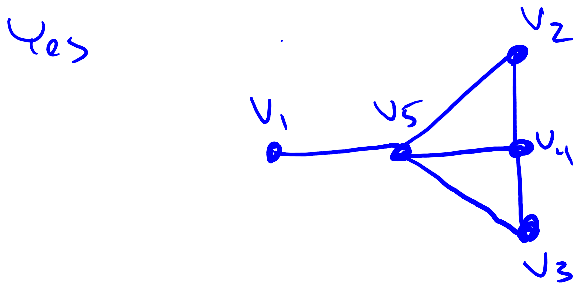
Directions: Answer the problems given below.

1. In each part, determine whether such a graph exists: if it does, draw a picture; if it does not, clearly indicate why not.

a. A graph with 5 vertices all of degree 2.



b. A simple graph with 5 vertices of degrees 1, 2, 2, 3, 4.



c. A simple graph with 5 vertices all of degree 3.

No; the total degree would be $5 \cdot 3 = 15$,
a contradiction as it must be even!