Homework 1
AOE 5984 Cyber-Physical Systems and Distributed Control
Spring 2017

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The HW is due on February 2nd in class.

1 Assignments

Please simulate, plot and discuss the observations from the local voting protocols with agents with scalar single integrator dynamics, in Lectures 3-4 for the graphs in the following figures.
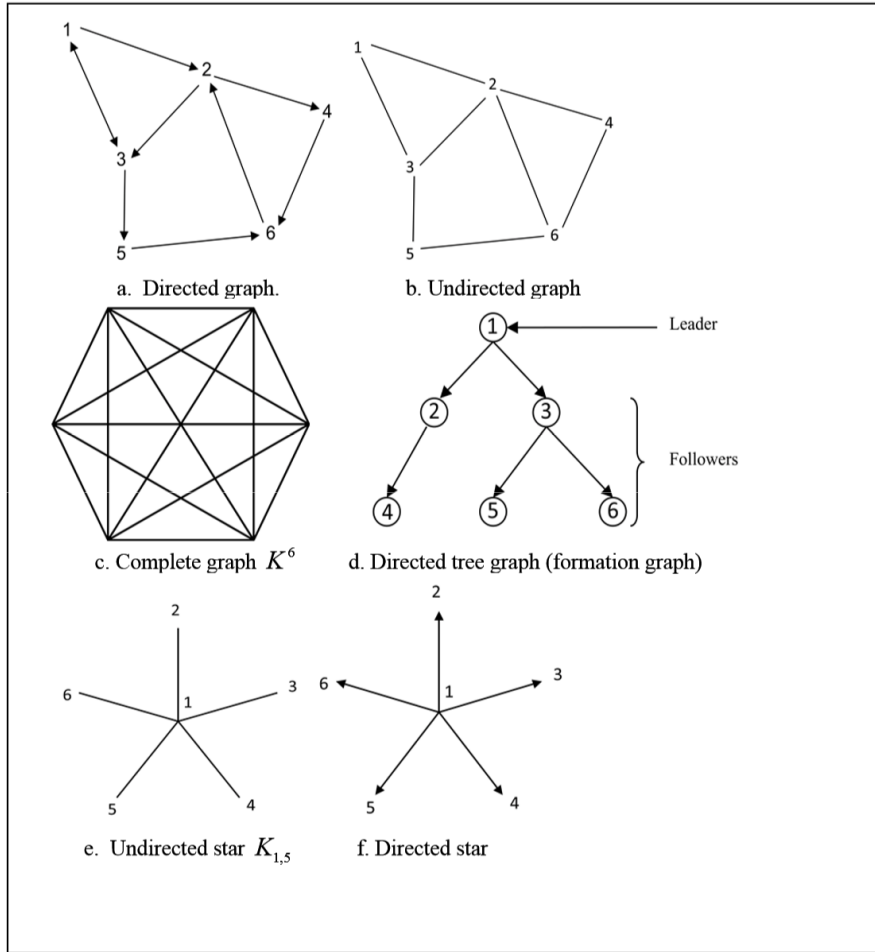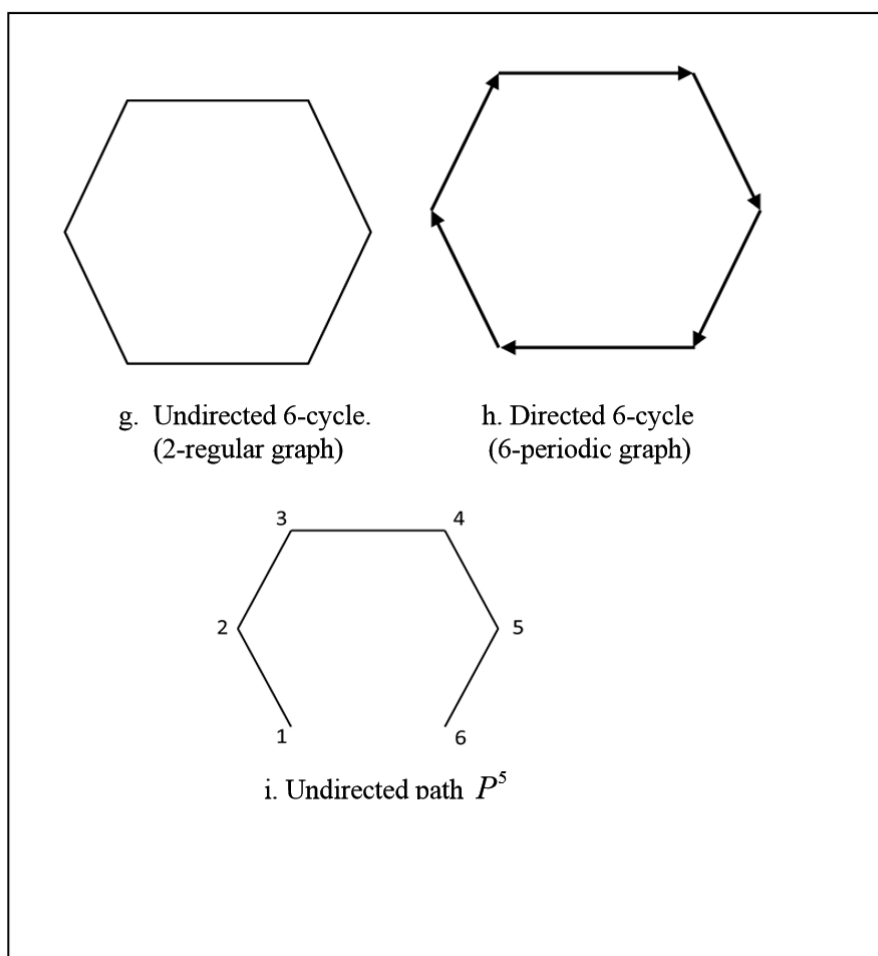
a. Directed graph.

b. Undirected graph

c. Complete graph K^6

d. Directed tree graph (formation graph)

e. Undirected star $K_{1,5}$

f. Directed star

Figure 1: Graphs.

g. Undirected 6-cycle.
(2-regular graph)

h. Directed 6-cycle
(6-periodic graph)

i. Undirected path P^5

Figure 2: Graphs.