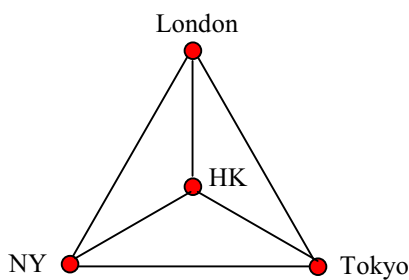
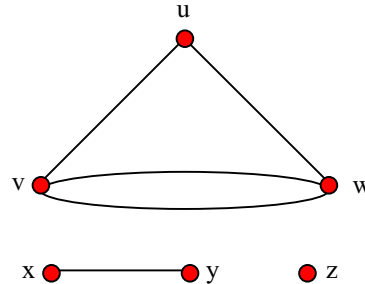


Tutorial Sheet 13 (Introduction & Definition of Graphs)

1. Write down the vertex-set and edge-set of each of the following graphs:



(a)



(b)

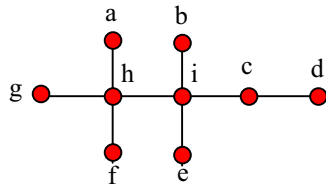
2. Draw the graphs given by the following lists:

- (a) vertex-set: {cpu, memory, input unit, output unit, backing store}
 edge-set: {{cpu, memory}, {input unit, memory}, {output unit, memory}, {backing store, memory}}

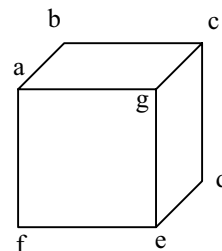
- (b) vertex-set: {a, b, c, d, e, f, g, h}
 edge-set: {(a, a), (a, b), (c, d), (d, c), (d, e), (f, e), (e, f), (f, h), (g, c)}

3. For each of the following graphs, write down

- (a) the degrees of all the vertices;
 (b) the degree-sequence.



(a)



(b)

4. How many edges of the graph K_7 .

5. Prove that there is no graph with seven vertices that is regular of degree 3.