3.1)

1.

a.

$$\text{Adj} = \begin{pmatrix} 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \end{pmatrix}$$
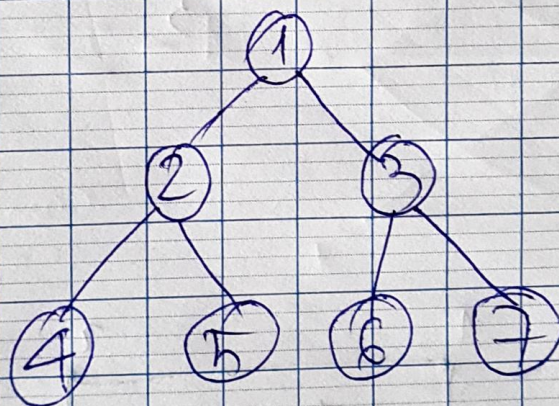
b. Edge liste :

$e = \{ (0,1) ; (1,3) ; (2,1) ; (3,2) ; (3,4) ; (4,5) ;$

$(5,7) ; \,\,\,\,\,\,\, (6,4) ; (7,6) \}.$

c. adj list :

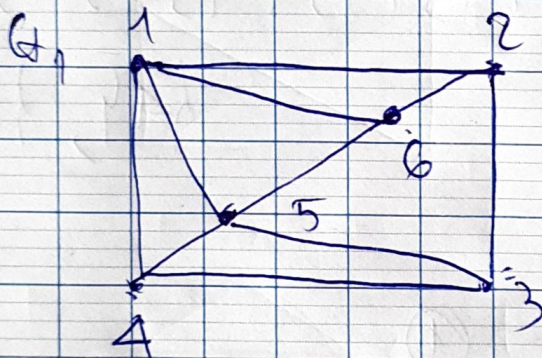adj-list = { {1}, {3}, {1}, {2,4}, {5}, {7},

{4}, {6} }.

2.

adj list =

{ {2,3}, {4,5}, {6,7},

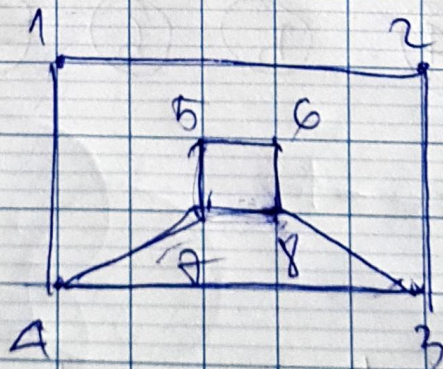{ (2,3), (1,4,5), (1,6,7), (2), (2,3),

(3)}.

3.

G_1 : there is not one

G_1

No eulerian circuit
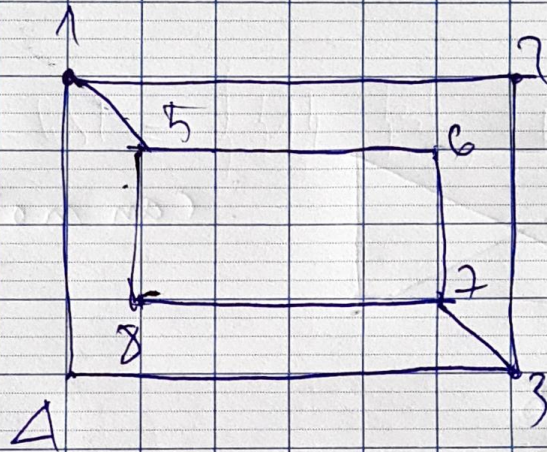
becaus 2, 3, 4, 5, 6

have odd

connected edge

G_2 :
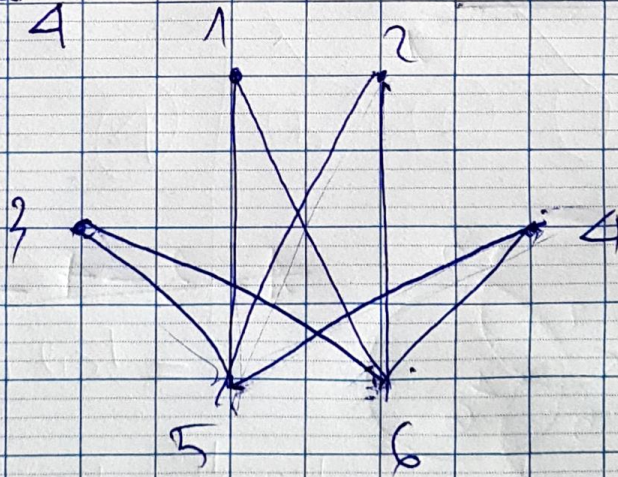

No circuit
No circuit

3, 4, 7, 8 have odd degree
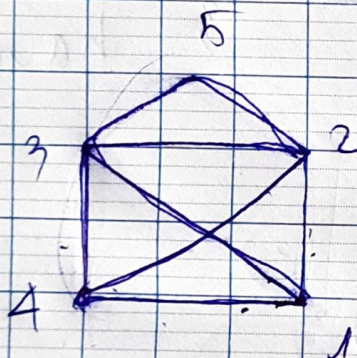
Q3:

Mo un cut't

1, 3, 5, 7

have odd degree

Q4:

3 − 5 − 4 − 6 − 1 − 5 − 2 − 6 − 3

4.

   : cannot draw

   1 — 2 — 3 — 4 — 2 — 5 — 3 —

: cannot draw
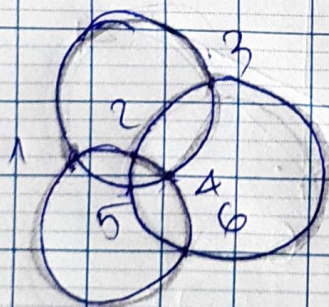
   1 — 3 — 4 — 2 — 1 — 6 —
3 — 2 — 5
— 6 — 4
— 1

1 — 3 — 4 — 5 — 2 — 6 — 4 — 2 — 1 — 6 — 5
— 1