

1. Which of the graphs below does **NOT** have a Hamiltonian path?

(3 points)

A. K_3

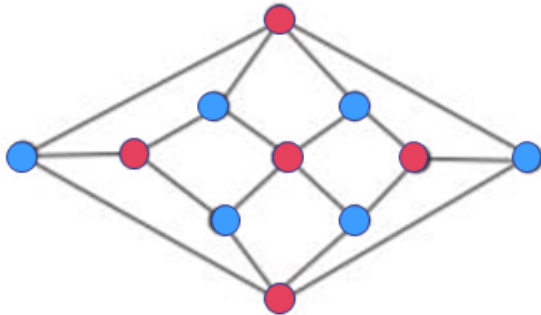
B. Q_4

C. K_3^+

D. K_4^+

✓ E. All the above have H-paths

2. Consider the graph $G=(V,E)$ with $|V|=11$ and $|E|=18$ below.

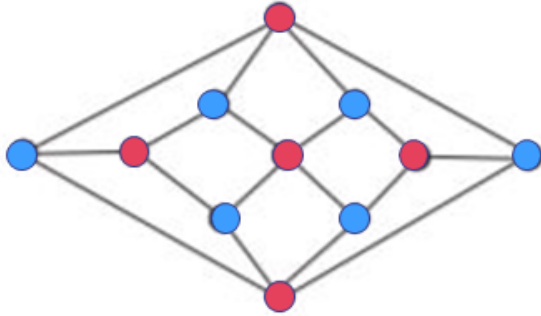


Which of the following is **NOT** a property of G ?

(3 points)

- A. It is bi-partite.
- B. It is planar with 9 regions.
- ✓ C. It has a Hamiltonian cycle.
- D. It does not have a K_4 subgraph.

3. Consider the graph $G=(V,E)$ with $|V|=11$ and $|E|=18$ below.



Which of the following is a property of G ?
(3 points)

- A. It is 4-regular.
- B. It is complete.
- ✓ C. It has a Hamiltonian path.
- D. It has 8 components, i.e, $K(G)=8$.