

### Hints for the line graph exercise on HW 4

1. Think about what the degree of a vertex in  $L(G)$  has to do with the degrees of vertices the corresponding edge connects in  $G$ .
2. If  $G$  has isolated vertices, do they affect  $L(G)$ ?
3. You can show  $L(G)$  is connected by showing that there exists a path from any vertex to any other vertex. What would such a path in  $L(G)$  correspond to in  $G$ ?