► **Problem 9.3-4(d)**
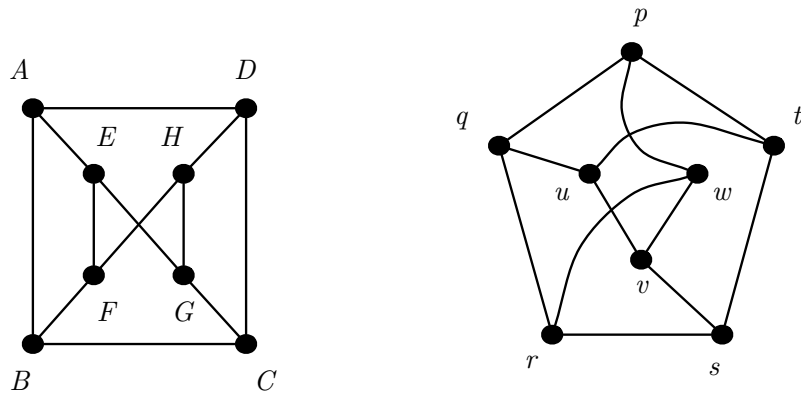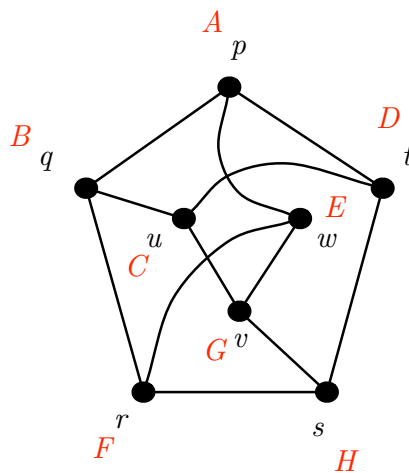
For the graph shown below,

- if the graph are not isomorphic, explain why not;

- if the graphs are isomorphic, exhibit an isomorphism from one to the other and relabel the graph on the right so as show this isomorphism.

Solution. These graphs are isomorphic. One possible isomorphism is given by

$$\varphi(A) = p, \quad \varphi(B) = q, \quad \varphi(C) = u, \quad \varphi(D) = t,$$
$$\varphi(E) = w, \quad \varphi(F) = r, \quad \varphi(G) = v, \quad \varphi(H) = s$$

as illustrated.

□

1