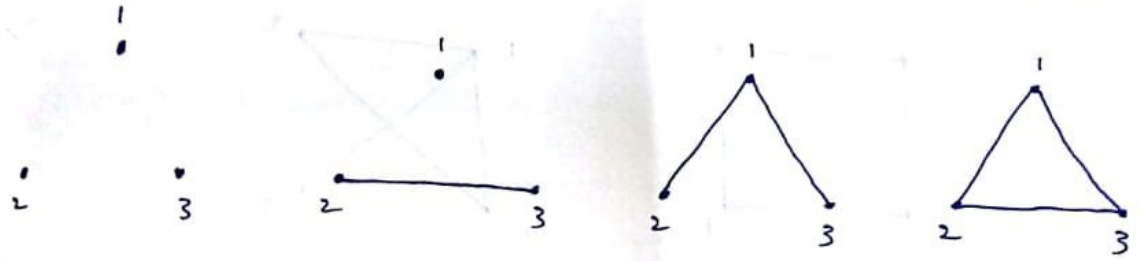
**Question :**
Two graphs are isomorphic if there is a way to rename the vertices of one to make it identical to the other. Draw all the non isomorphic graphs with two, three, four, and five vertices.

**Solution :**

# Activity - 7

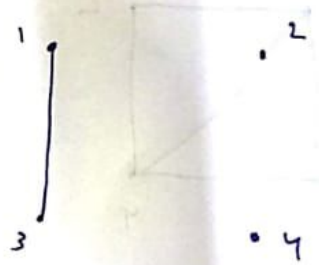
* Non Isomorphic graphs with '2' vertices = 2


* Non Isomorphic graphs with '3' vertices = 4

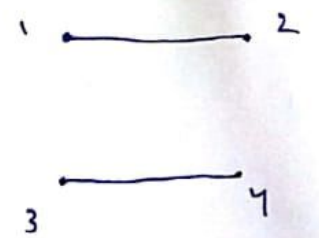



* Non Isomorphic graphs with '4' vertices = 11

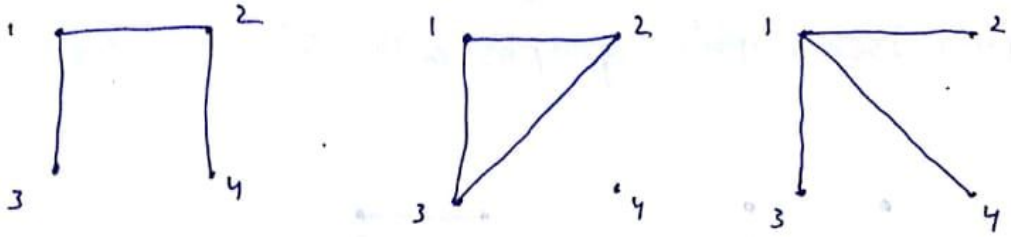

'0' edge



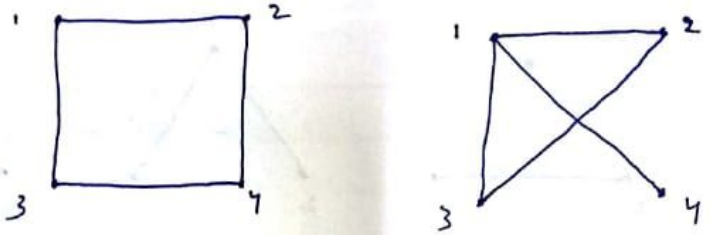

'1' edge

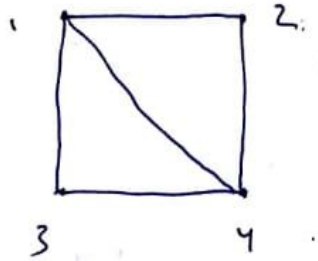

'2' edges




'3' edges



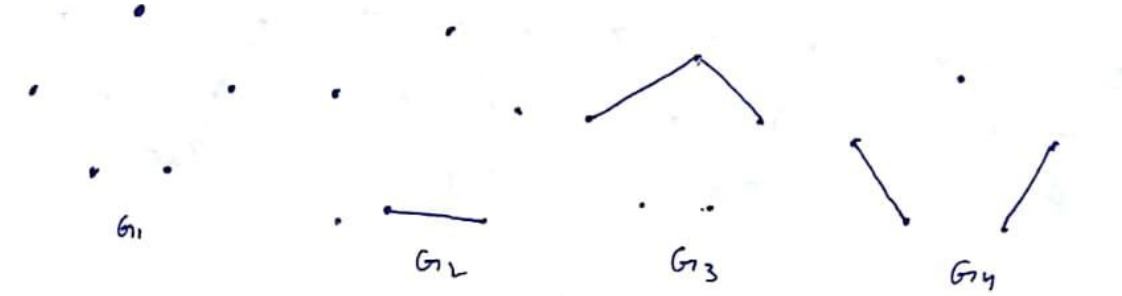

'4' edges

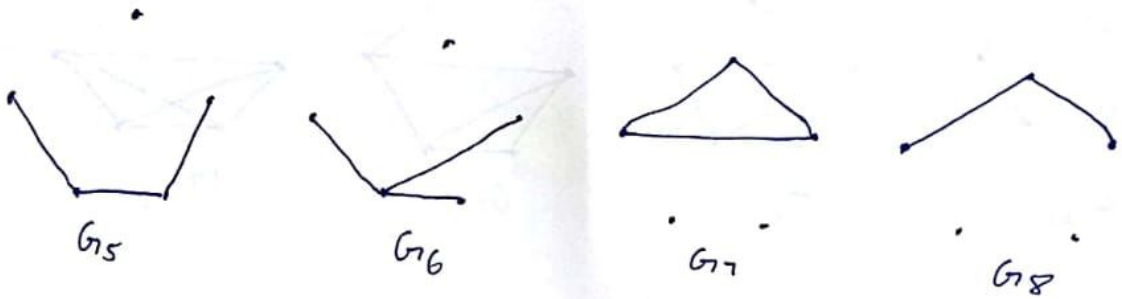


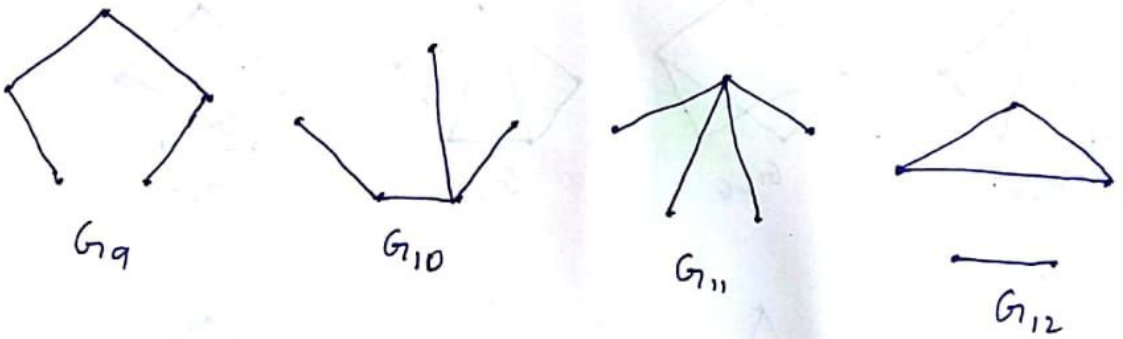

'5' edge

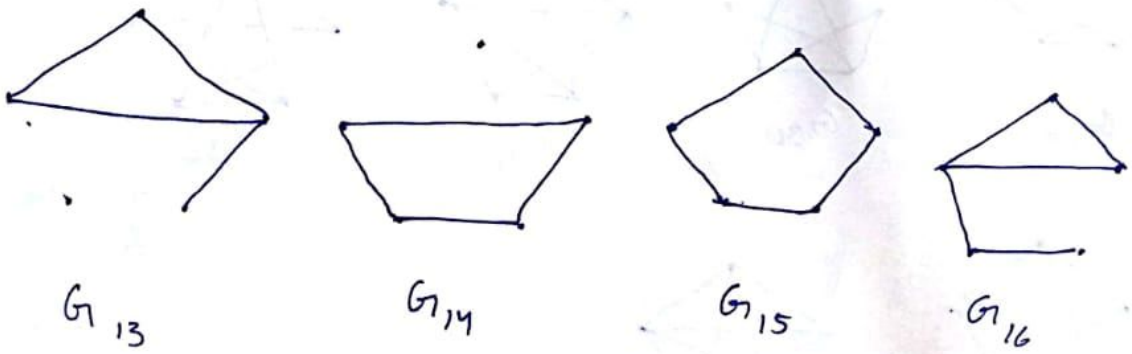

'6' edge

* Non isomorphic graphs with '5' vertices = 34.

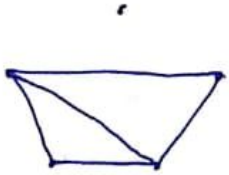


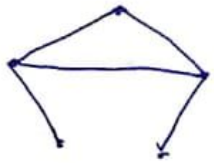



$G_{17}$

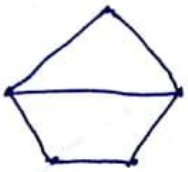


$G_{18}$

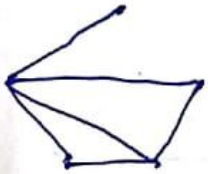
$G_{19}$



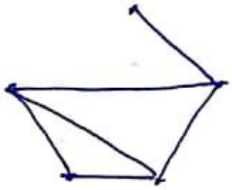
$G_{20}$



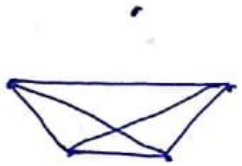
$G_{21}$



$G_{22}$



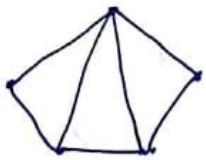
$G_{23}$



$G_{24}$

$G_{25}$

$G_{26}$

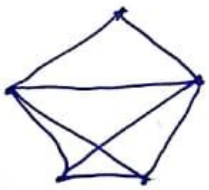


$G_{27}$

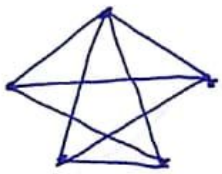
$G_{28}$

$G_{29}$

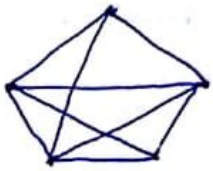
$G_{30}$



$G_{31}$



$G_{32}$



$G_{33}$

$G_{34}$