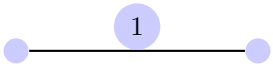
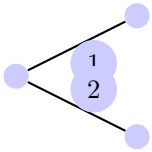
Example: Let E be a set, $\{1, 2, 3\}$ then:
Show there are exactly eight non-isomorphic matroids on E. Along with the corresponding Graph of each matroid. This confirms to us the value in the previous table for $n = 3$.
Solution:

$$\{\emptyset\}$$

$$\{\{\emptyset\}, \{1\}\} \cong \{\{\emptyset\}, \{2\}\} \cong \{\{\emptyset\}, \{3\}\}$$

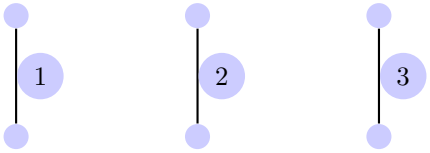


$$\{\{\emptyset\}, \{1\}, \{2\}, \{1, 2\}\} \cong \{\{\emptyset\}, \{1\}, \{3\}, \{1, 3\}\} \cong \{\{\emptyset\}, \{2\}, \{3\}, \{2, 3\}\}$$



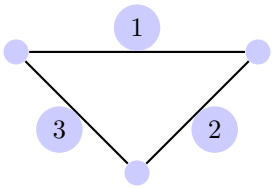
$$\{\{\emptyset\}, \{1\}, \{2\}\}$$

$$\{\{\emptyset\}, \{1\}, \{2\}, \{3\}\}$$



$$\{\{\emptyset\},\{1\},\{2\},\{3\},\{1,2\},\{2,3\}\}$$

$$\{\{\emptyset\},\{1\},\{2\},\{3\},\{1,2\},\{1,3\},\{2,3\}\}$$



$$\{\{\emptyset\},\{1\},\{2\},\{3\},\{1,2\},\{1,3\},\{2,3\},\{1,2,3\}\}$$