In[ ]:=
$$\text{gem1} = \begin{pmatrix} 0 & 1 & 1 & 1 & 1 \\ 1 & 0 & 1 & 1 & 0 \\ 1 & 1 & 0 & 0 & 0 \\ 1 & 1 & 0 & 0 & -1 \\ 1 & 0 & 0 & -1 & 0 \end{pmatrix};$$

$$\text{gem2} = \begin{pmatrix} 0 & 1 & 1 & 1 & 1 \\ 1 & 0 & 1 & -1 & 0 \\ 1 & 1 & 0 & 0 & 0 \\ 1 & -1 & 0 & 0 & 1 \\ 1 & 0 & 0 & 1 & 0 \end{pmatrix};$$

In[ ]:=
```
switchingequiv[gem1, gem2]
switchingisom[gem1, gem2]
```

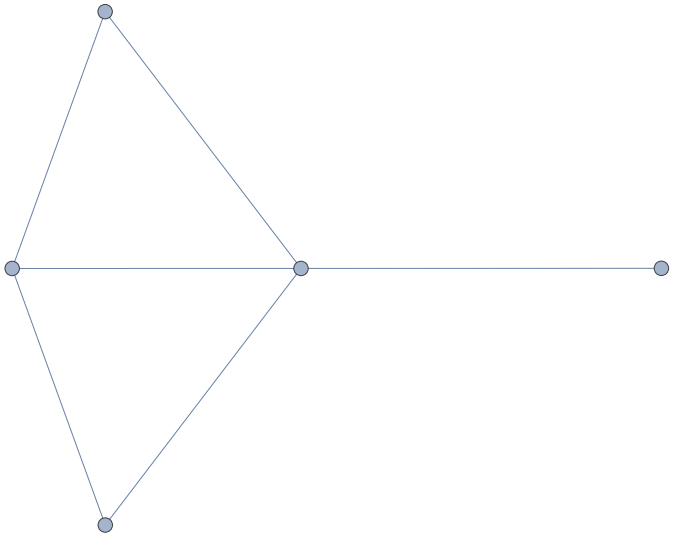
Out[ ]= 0

Out[ ]= 0

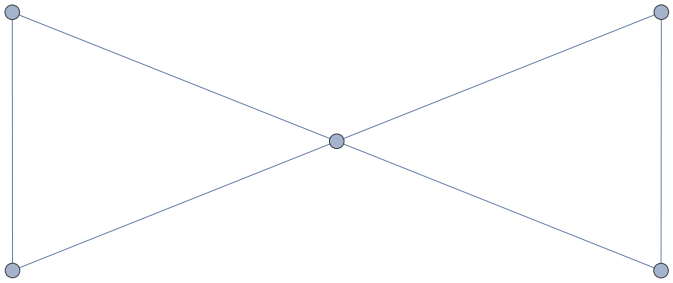
In[ ]:=
```
AdjacencyGraph[{{0,1,1,1,1},{1,0,1,1,0},{1,1,0,0,0},{1,1,0,0,0},{1,0,0,0,0}}]
```

```
AdjacencyGraph[{{0,1,1,1,1},{1,0,1,0,0},{1,1,0,0,0},{1,0,0,0,1},{1,0,0,1,0}}]
```

Out[ ]=



Out[ ]=



In[ ]:=
```
inclexcl[gem1, λ, "even"]
inclexcl[gem1, λ, "odd"]
inclexclambdau[gem1, λ, u, "even"]
inclexclambdau[gem1, λ, u, "odd"]
```

Out[ ]= $(-2+\lambda)^2\,\lambda\,\left(3-3\,\lambda+\lambda^2\right)$

Out[ ]= $(-2+\lambda)^2\,(-1+\lambda)^3$

Out[ ]= $(-2+\lambda)^2\,\left(-2\,u+3\,\lambda+u\,\lambda-3\,\lambda^2+\lambda^3\right)$

Out[ ]= $(-2+\lambda)^2\,\left(-1-2\,u+3\,\lambda+u\,\lambda-3\,\lambda^2+\lambda^3\right)$

In[ ]:=
```
inclexcl[gem2, λ, "even"]
inclexcl[gem2, λ, "odd"]
inclexclambdau[gem2, λ, u, "even"]
inclexclambdau[gem2, λ, u, "odd"]
```

Out[ ]= $(-2+\lambda)^2\,\lambda\,\left(3-3\,\lambda+\lambda^2\right)$

Out[ ]= $(-2+\lambda)^2\,(-1+\lambda)^3$

Out[ ]= $(-2+\lambda)^2\,\left(-2\,u+3\,\lambda+u\,\lambda-3\,\lambda^2+\lambda^3\right)$

Out[ ]= $(-2+\lambda)^2\,\left(-1-2\,u+3\,\lambda+u\,\lambda-3\,\lambda^2+\lambda^3\right)$