Example of SCSCP client in SageMath connecting to GAP server

In [1]:
```
from scscp import SCSCPCLI
```

- Establish connection

In [2]:
```
c = SCSCPCLI('scscp.gap-system.org')
```

In [3]:
```
c.heads
```

Out[3]:
```
{'scscp_transient_1': ['SCSCPStartTracing', 'Addition', 'IO_UnpickleStringAndPic
kleItBack', 'NrConjugacyClasses', 'ConwayPolynomial', 'SmallGroup', 'GroupIdenti
fication', 'AutomorphismGroup', 'IdGroup512ByCode', 'Phi', 'Factorial', 'GnuExpl
ained', 'MathieuGroup', 'TransitiveGroup', 'PrimitiveGroup', 'Multiplication', '
NextUnknownGnu', 'Identity', 'IsPrimeInt', 'Gnu', 'Determinant', 'LatticeSubgrou
ps', 'Length', 'MatrixMultiplication', 'SCSCPStopTracing', 'AlternatingGroup', '
SymmetricGroup', 'IdGroup', 'SylowSubgroup', 'GnuWishlist', 'Size']}
```

- The simplest example

In [4]:
```
c.heads.scscp_transient_1.Identity([int(1)])
```

Out[4]:
```
1
```

- Working with GAP Small Groups Library

In [5]:
```
g=c.heads.scscp_transient_1.SmallGroup([int(512),int(13)])
```

In [6]:
```
g
```

Out[6]:
```
OMApplication(OMSymbol('pcgroup_by_pcgscode', 'pcgroup1', id=None, cdbase=None),
[OMInteger(114408488571536161623939587401849792853027787l7L, id=None), OMInteger
(512, id=None)], id=None, cdbase=None)
```

In [7]:
```
c.heads.scscp_transient_1.NrConjugacyClasses([g])
```

Out[7]:
```
92
```

In [8]:
```
c.heads.scscp_transient_1.NrConjugacyClasses([c.heads.scscp_transient_1.SmallGro
up([int(512),int(13)])])
```

Out[8]:
```
92
```

- Close connection

In [9]:
```
c.quit()
```