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// import mmt terms
import info.kwarc.mmt.api.Path
import info.kwarc.mmt.api.uom.OMLiteral._
import info.kwarc.mmt.api.objects._

// create a group inside of MMT
val mmt_term = OMA(
  OMS(Path.parseS("http://www.gap-system.org?pcgroup1?pcgroup_by_pcgscode"),
    List(
      OMI(BigInt("11440848857153616162393958740184979285302778717")),
      OMI(512)
    )
  )

/**
 * (http://www.gap-system.org?pcgroup1?pcgroup_by_pcgscode
 11440848857153616162393958740184979285302778717 512)
 */
println(mmt_term)

// encode it into an OpenMath term (for GAP in this case)
import info.kwarc.mmt.odk.OpenMath.Coding.GAPEncoding
val om_term = GAPEncoding.decodeExpression(mmt_term)

/**
 * OMAApplication(
 *   OMSymbol(pcgscode,pcgroup1,None,None),
 *   List(
 *     OMInteger(11440848857153616162393958740184979285302778717,None),
 *     OMInteger(512,None)
 *   ),None,None)
 */
println(om_term)

// prepare a computation for GAP
// here we compute the nr of conjugacy classes
import info.kwarc.mmt.odk.OpenMath._
val NrConjugacyClasses = OMSymbol("NrConjugacyClasses", "scscp_transient_1", None, None)
val computation = OMAApplication(NrConjugacyClasses, List(om_term), None, None)

// fetch the resulting expression from GAP
val client = SCSCPClient("scscp.gap-system.org")
val om_result = client(computation).fetchExpression()
client.quit()

/**
 * OMInteger(92,None)
 */

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println(om_result)
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```
// and turn the result back into an MMT term
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```
val mmt_result = GAPEncoding.encode(om_result)
```

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/**
```

```
 * 92
```

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 */
```

```
println(mmt_result)
```