{{{id=24|

benchmark()

///

Running benchmark 0

Running benchmark 1

Running benchmark 2

Running benchmark 3

Running benchmark 4

Running benchmark 5

Running benchmark 6

Running benchmark 7

Running benchmark 8

([(0, 0.18497200000000014, 'Factor the following polynomial over\n the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)'), (1, 0.27395800000000037, 'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank'), (2, 0.02799599999999991, "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001"), (3, 0.056990999999999126, "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001"), (4, 0.001000000000000334, 'Rational polynomial arithmetic using SAGE. Compute (x^29+17\*x-5)^200.'), (5, 0.005999000000000088, 'Rational polynomial arithmetic using SAGE. Compute (x^19 - 18\*x + 1)^50 one hundred times.'), (6, 0.05999100000000013, 'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.'), (7, 0.1989700000000001, 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.')], 0.8118759999999998)

}}}

{{{id=21|

#totaal

sage55=[(0, 0.1989700000000001, 'Benchmark 0: Factor the following polynomial over\n the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)'), (1, 0.2939560000000001,

'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank'), (2, 0.027995000000000214, "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001"), (3, 0.05599099999999968, "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001"), (4, 0.03599500000000022, 'Rational polynomial arithmetic using Sage. Compute (x^29+17\*x-5)^200.'), (5, 0.12198199999999959, 'Rational polynomial arithmetic using Sage. Compute (x^19 - 18\*x + 1)^50 one hundred times.'), (6, 0.057990999999999904,

'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.'), (7, 0.19696899999999973, 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.')]

///

}}}

{{{id=22|

#totaal

sage541=[(0, 0.258961, 'Benchmark 0: Factor the following polynomial over\n the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)'), (1,0.29095499999999985, 'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank'), (2, 0.2959559999999999, "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001"), (3,

0.05999099999999968, "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001"), (4, 0.038994000000000195, 'Rational polynomial arithmetic using Sage. Compute x^29+17\*x-5)^200.'), (5, 0.12897999999999987, 'Rational polynomial arithmetic using Sage. Compute (x^19 - 18\*x + 1)^50 one hundred times.'), (6, 0.06198999999999977, 'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.'), (7,0.2089679999999996, 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.')]

///

}}}

{{{id=23|

sage48=[(0, 0.36394500000000041, 'Factor the following polynomial over\n the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)'), (1, 0.46792800000000012, 'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank'), (2, 0.070990000000000109, "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001"), (3, 0.12098100000000001, "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001"), (4, 0.0019999999999997797, 'Rational polynomial arithmetic using SAGE. Compute (x^29+17\*x-5)^200.'), (5, 0.0099979999999999514, 'Rational polynomial arithmetic using SAGE. Compute (x^19 - 18\*x + 1)^50 one hundred times.'), (6, 0.10998299999999972, 'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.'), (7, 0.31795200000000001, 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.')]

///

}}}

{{{id=3|

#totaal 1.4667769999999987

sage47=[(0, 0.40093900000000016, 'Factor the following polynomial over\n the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)'), (1, 0.39593899999999937, 'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank'), (2, 0.044992999999999839, "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001"), (3, 0.07798800000000039, "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001"), (4, 0.0, 'Rational polynomial arithmetic using SAGE. Compute (x^29+17\*x-5)^200.'), (5, 0.015998999999999874, 'Rational polynomial arithmetic using SAGE. Compute (x^19 - 18\*x + 1)^50 one hundred times.'), (6, 0.083988000000000618, 'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.'), (7, 0.43493400000000015, 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.')]

///

}}}

{{{id=4|

test=['Factor the following polynomial over\n the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)', 'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank', "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001", "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001", 'Rational polynomial arithmetic using SAGE. Compute (x^29+17\*x-5)^200.', 'Rational polynomial arithmetic using SAGE. Compute (x^19 - 18\*x + 1)^50 one hundred times.', 'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.', 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.']

///

}}}

{{{id=11|

#totaal 1.7561089999999999

sage46=[(0, 0.43602799999999986, 'Factor the following polynomial over the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)'),

(1,0.57603499999999963, 'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank'),

(2, 0.072005000000000319, "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001"),

(3, 0.096006000000000036, "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001"),

(4, 0.0, 'Rational polynomial arithmetic using SAGE. Compute (x^29+17\*x-5)^200.'),

(5, 0.0080009999999997028, 'Rational polynomial arithmetic using SAGE. Compute (x^19 - 18\*x + 1)^50 one hundred times.'),

(6, 0.10000600000000004, 'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.'),

(7, 0.44002700000000017, 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.')]

///

}}}

{{{id=1|

#totaal 2.0201269999999996

sage34=[(0, 0.42402699999999971, 'Factor the following polynomial over the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)'),

(1, 0.52803300000000064, 'Find the Mordell-Weil group of the elliptic curve 5077A using mwrank'),

(2, 0.18801099999999948, "Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001"),

(3, 0.26001700000000039, "Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001"),

(4, 0.0, 'Rational polynomial arithmetic using SAGE. Compute (x^29+17\*x-5)^200.'),

(5, 0.0, 'Rational polynomial arithmetic using SAGE. Compute (x^19 - 18\*x + 1)^50 one hundred times.'),

(6, 0.60803799999999963, 'Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p <40.'),

(7, 0.0, 'Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.')]

///

}}}

{{{id=12|

header=[("3.4","4.6","4.7","4.8","5.4.1","5.5","Benchmark on an identical computer with Virtualbox 4.2.6, Windows 7 64b")]

compare=[sage34,sage46,sage47,sage48,sage541,sage55]

data=[]

for j in xrange(8):

 rowdata=[]

 for sageversion in compare:

 rowdata.append('%ss'%round(sageversion[j][1],1))

 rowdata.append(test[j])

 data.append(rowdata)

totaaltijd=[]

for sageversion in compare:

 som=0

 for uitslag in sageversion: som+=uitslag[1]

 totaaltijd.append(str(round(som,2))+"s")

total=totaaltijd+["TOTAL"]

///

}}}

{{{id=26|

print total

///

['2.01s', '1.73s', '1.45s', '1.46s', '1.34s', '0.99s', 'TOTAL']

}}}

{{{id=2|

html.table(header+data+[total],True)

///

<html>

<div class="notruncate">

<table class="table\_form">

<tbody>

<tr>

<th>3.4</th>

<th>4.6</th>

<th>4.7</th>

<th>4.8</th>

<th>5.4.1</th>

<th>5.5</th>

<th>Benchmark on an identical computer with Virtualbox 4.2.6, Windows 7 64b</th>

</tr>

<tr class ="row-a">

<td>0.4s</td>

<td>0.4s</td>

<td>0.4s</td>

<td>0.4s</td>

<td>0.3s</td>

<td>0.2s</td>

<td>Factor the following polynomial over

 the rational numbers: (x^97+19\*x+1)\*(x^103-19\*x^97+14)\*(x^100-1)</td>

</tr>

<tr class ="row-b">

<td>0.5s</td>

<td>0.6s</td>

<td>0.4s</td>

<td>0.5s</td>

<td>0.3s</td>

<td>0.3s</td>

<td>Find the Mordell-Weil group of the elliptic curve 5077A using mwrank</td>

</tr>

<tr class ="row-a">

<td>0.2s</td>

<td>0.1s</td>

<td>0.0s</td>

<td>0.1s</td>

<td>0.3s</td>

<td>0.0s</td>

<td>Some basic arithmetic with very large Integer numbers: '3^1000001 \* 19^100001</td>

</tr>

<tr class ="row-b">

<td>0.3s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>Some basic arithmetic with very large Rational numbers: '(2/3)^100001 \* (17/19)^100001</td>

</tr>

<tr class ="row-a">

<td>0.0s</td>

<td>0.0s</td>

<td>0.0s</td>

<td>0.0s</td>

<td>0.0s</td>

<td>0.0s</td>

<td>Rational polynomial arithmetic using SAGE. Compute (x^29+17\*x-5)^200.</td>

</tr>

<tr class ="row-b">

<td>0.0s</td>

<td>0.0s</td>

<td>0.0s</td>

<td>0.0s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>Rational polynomial arithmetic using SAGE. Compute (x^19 - 18\*x + 1)^50 one hundred times.</td>

</tr>

<tr class ="row-a">

<td>0.6s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>0.1s</td>

<td>Compute the p-division polynomials of y^2 = x^3 + 37\*x - 997 for primes p < 40.</td>

</tr>

<tr class ="row-b">

<td>0.0s</td>

<td>0.4s</td>

<td>0.4s</td>

<td>0.3s</td>

<td>0.2s</td>

<td>0.2s</td>

<td>Compute the Mordell-Weil group of y^2 = x^3 + 37\*x - 997.</td>

</tr>

<tr class ="row-a">

<td>2.01s</td>

<td>1.73s</td>

<td>1.45s</td>

<td>1.46s</td>

<td>1.34s</td>

<td>0.99s</td>

<td>TOTAL</td>

</tr>

</tbody>

</table>

</div>

</html>

}}}