OpenGeoProver Output for conjecture "geothm_zadatak"

Wu's method used

October 1, 2016

1 Invoking the theorem prover

The used proving method is Wu's method. The input system is:

```
-x_3 + x_1
      = -x_3 + x_2
      = x_4 + x_1 -
            -x_4 + x_2
            -x_7 + x_5
            -x_7 + x_6
 p_6
            -x_8 + x_5
      = x_8 + x_6 -
            -x_{11} + x_9
 p_9
            -x_{11} + x_{10}
      = -x_{12} + x_9
p_{12}
      = x_{12} + x_{10} -
p_{13}
      = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
      = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{15}
      = x_{15} - x_9x_5 + x_9x_1 + x_5x_2
      = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
      = x_{17} + 1
            x_{18} + 1
p_{18}
           x_{19} + 1
p_{19}
            -x_{23}x_{17} + x_{20}
p_{20}
p_{21}
           -x_{23}x_{18} + x_{21}
           -x_{23}x_{19} + x_{22}
p_{22}
      = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
```

1.1 Triangulation, step 1

Choosing variable: Trying the variable with index 23.

Variable x_{23} selected: The number of polynomials with this variable, with indexes from 1 to 23, is 3.

Minimal degrees: 3 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_{23} from all other polynomials by reducing them with polynomial p_{20} from previous step.

Finished a triangulation step, the current system is:

$$\begin{array}{rclrcl} p_1 & = & -x_3 + x_1 \\ p_2 & = & -x_3 + x_2 \\ p_3 & = & x_4 + x_1 - \\ p_4 & = & -x_4 + x_2 \\ p_5 & = & -x_7 + x_5 \\ p_6 & = & -x_7 + x_6 \\ p_7 & = & -x_8 + x_5 \\ p_8 & = & x_8 + x_6 - \\ p_9 & = & -x_{11} + x_{10} \\ p_{10} & = & -x_{11} + x_{10} \\ p_{11} & = & -x_{12} + x_9 \\ p_{12} & = & x_{12} + x_{10} - \\ p_{13} & = & x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2 \\ p_{14} & = & x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1 \\ p_{15} & = & x_{15} - x_9x_5 + x_9x_1 + x_5x_2 \\ p_{16} & = & x_{16} + x_{14}x_2 + x_{13}x_1 \\ p_{17} & = & x_{17} + 1 \\ p_{18} & = & x_{18} + 1 \\ p_{19} & = & x_{19} + 1 \\ p_{20} & = & x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16} \\ p_{21} & = & -x_{21}x_{17} + x_{20}x_{19} \\ p_{23} & = & -x_{23}x_{17} + x_{20} \end{array}$$

1.2 Triangulation, step 2

Choosing variable: Trying the variable with index 22.

Variable x_{22} selected: The number of polynomials with this variable, with indexes from 1 to 22, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_{22} from all other polynomials by reducing them with polynomial p_{20} from previous step.

Finished a triangulation step, the current system is:

```
p_1 = -x_3 + x_1
 p_2 = -x_3 + x_2
     = x_4 + x_1 -
 p_3
     = -x_4 + x_2
     = -x_7 + x_5
 p_5
     = -x_7 + x_6
 p_6
     = -x_8 + x_5
     = x_8 + x_6 -
 p_8
     = -x_{11} + x_9
     = -x_{11} + x_{10}
p_{11} = -x_{12} + x_9
p_{12} = x_{12} + x_{10} -
p_{13} = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
p_{14} = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{15} = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
     = x_{16} + x_{14}x_2 + x_{13}x_1
p_{17} = x_{17} + 1
     = x_{18} + 1
p_{18}
     = x_{19} + 1
p_{20} = -x_{21}x_{17} + x_{20}x_{18}
p_{21} = x_{21}x_{17}x_{14} + x_{20}x_{19}x_{15} + x_{20}x_{17}x_{13} + x_{17}x_{16}
p_{22} = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
p_{23} = -x_{23}x_{17} + x_{20}
```

1.3 Triangulation, step 3

Choosing variable: Trying the variable with index 21.

Variable x_{21} selected: The number of polynomials with this variable, with indexes from 1 to 21, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_{21} from all other polynomials by reducing them with polynomial p_{20} from previous step.

$$p_1 = -x_3 + x_1$$

```
= -x_3 + x_2
       = x_4 + x_1 -
 p_3
            -x_4 + x_2
 p_4
       = -x_7 + x_5
       = -x_7 + x_6
 p_6
            -x_8 + x_5
 p_7
       = x_8 + x_6 -
 p_8
       = -x_{11} + x_9
 p_9
            -x_{11} + x_{10}
       =
p_{10}
       = -x_{12} + x_9
p_{11}
       = x_{12} + x_{10} -
p_{12}
       = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
       = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
       = x_{15} - x_9x_5 + x_9x_1 + x_5x_2
p_{15}
       = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
       = x_{17} + 1
p_{17}
       = x_{18} + 1
p_{18}
       = x_{19} + 1
p_{19}
       = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
       = -x_{21}x_{17} + x_{20}x_{18}
p_{21}
       = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
p_{22}
       = -x_{23}x_{17} + x_{20}
p_{23}
```

1.4 Triangulation, step 4

Choosing variable: Trying the variable with index 20.

Variable x_{20} selected: The number of polynomials with this variable, with indexes from 1 to 20, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{20} . No reduction needed.

The triangular system has not been changed.

1.5 Triangulation, step 5

Choosing variable: Trying the variable with index 19.

Variable x_{19} **selected:** The number of polynomials with this variable, with indexes from 1 to 19, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{19} . No reduction needed.

The triangular system has not been changed.

1.6 Triangulation, step 6

Choosing variable: Trying the variable with index 18.

Variable x_{18} selected: The number of polynomials with this variable, with indexes from 1 to 18, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{18} . No reduction needed.

The triangular system has not been changed.

1.7 Triangulation, step 7

Choosing variable: Trying the variable with index 17.

Variable x_{17} selected: The number of polynomials with this variable, with indexes from 1 to 17, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{17} . No reduction needed.

The triangular system has not been changed.

1.8 Triangulation, step 8

Choosing variable: Trying the variable with index 16.

Variable x_{16} selected: The number of polynomials with this variable, with indexes from 1 to 16, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{16} . No reduction needed.

The triangular system has not been changed.

1.9 Triangulation, step 9

Choosing variable: Trying the variable with index 15.

Variable x_{15} selected: The number of polynomials with this variable, with indexes from 1 to 15, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{15} . No reduction needed.

The triangular system has not been changed.

1.10 Triangulation, step 10

Choosing variable: Trying the variable with index 14.

Variable x_{14} selected: The number of polynomials with this variable, with indexes from 1 to 14, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{14} . No reduction needed.

The triangular system has not been changed.

1.11 Triangulation, step 11

Choosing variable: Trying the variable with index 13.

Variable x_{13} selected: The number of polynomials with this variable, with indexes from 1 to 13, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_{13} . No reduction needed.

The triangular system has not been changed.

1.12 Triangulation, step 12

Choosing variable: Trying the variable with index 12.

Variable x_{12} selected: The number of polynomials with this variable, with indexes from 1 to 12, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_{12} from all other polynomials by reducing them with polynomial p_{11} from previous step.

$$p_1 = -x_3 + x_1$$

$$p_2 = -x_3 + x_2$$

$$p_3 = x_4 + x_1 -$$

$$p_4 = -x_4 + x_2$$

$$p_5 = -x_7 + x_5$$

$$p_6 = -x_7 + x_6$$

 $p_7 = -x_8 + x_5$

$$p_8 = x_8 + x_6 -$$

$$p_9 = -x_{11} + x_9$$

$$p_{10} = -x_{11} + x_{10}$$

$$p_{11} = -x_{10} - x_9 + 1$$

$$p_{12} = -x_{12} + x_9$$

```
= x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
p_{13}
       = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{14}
       = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
p_{15}
       = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
       = x_{17} + 1
p_{17}
       = x_{18} + 1
p_{18}
       = x_{19} + 1
p_{19}
       = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
       = -x_{21}x_{17} + x_{20}x_{18}
p_{21}
       = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
p_{22}
       = -x_{23}x_{17} + x_{20}
p_{23}
```

1.13 Triangulation, step 13

Choosing variable: Trying the variable with index 11.

Variable x_{11} selected: The number of polynomials with this variable, with indexes from 1 to 11, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_{11} from all other polynomials by reducing them with polynomial p_9 from previous step.

```
= -x_3 + x_1
      = -x_3 + x_2
 p_2
      = x_4 + x_1 -
 p_3
      = -x_4 + x_2
      = -x_7 + x_5
 p_5
      = -x_7 + x_6
 p_6
      = -x_8 + x_5
 p_7
      = x_8 + x_6 -
 p_8
      = -x_{10} - x_9 + 1
 p_9
      = -x_{10} + x_9
p_{10}
      = -x_{11} + x_9
p_{11}
     = -x_{12} + x_9
p_{12}
      = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
     = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{14}
p_{15}
     = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
     = x_{16} + x_{14}x_2 + x_{13}x_1
p_{17}
     = x_{17} + 1
p_{18} = x_{18} + 1
```

```
\begin{array}{lll} p_{19} & = & x_{19}+1 \\ p_{20} & = & -x_{20}x_{19}x_{17}x_{15}-x_{20}x_{18}x_{17}x_{14}-x_{20}x_{17}^2x_{13}-x_{17}^2x_{16} \\ p_{21} & = & -x_{21}x_{17}+x_{20}x_{18} \\ p_{22} & = & x_{22}x_{15}+x_{21}x_{14}+x_{20}x_{13}+x_{16} \\ p_{23} & = & -x_{23}x_{17}+x_{20} \end{array}
```

1.14 Triangulation, step 14

Choosing variable: Trying the variable with index 10.

Variable x_{10} selected: The number of polynomials with this variable, with indexes from 1 to 10, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_{10} from all other polynomials by reducing them with polynomial p_9 from previous step.

```
= -x_3 + x_1
 p_1
      = -x_3 + x_2
 p_2
      = x_4 + x_1 -
      = -x_4 + x_2
 p_4
      = -x_7 + x_5
 p_5
      = -x_7 + x_6
      = -x_8 + x_5
 p_7
      = x_8 + x_6 -
 p_8
      = -2x_9 + 1
 p_9
      = -x_{10} - x_9 + 1
p_{10}
      = -x_{11} + x_9
p_{11}
      = -x_{12} + x_9
p_{12}
     = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
p_{13}
      = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{14}
      = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
p_{15}
      = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
      = x_{17} + 1
p_{17}
      = x_{18} + 1
p_{18}
      = x_{19} + 1
p_{19}
      = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
      = -x_{21}x_{17} + x_{20}x_{18}
p_{22}
      = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
     = -x_{23}x_{17} + x_{20}
p_{23}
```

1.15 Triangulation, step 15

Choosing variable: Trying the variable with index 9.

Variable x_9 selected: The number of polynomials with this variable, with indexes from 1 to 9, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_9 . No reduction needed.

The triangular system has not been changed.

1.16 Triangulation, step 16

Choosing variable: Trying the variable with index 8.

Variable x_8 selected: The number of polynomials with this variable, with indexes from 1 to 8, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_8 from all other polynomials by reducing them with polynomial p_7 from previous step.

```
= -x_3 + x_1
      = -x_3 + x_2
 p_2
      = x_4 + x_1 -
 p_3
      = -x_4 + x_2
      = -x_7 + x_5
 p_5
      = -x_7 + x_6
 p_6
      = -x_6 - x_5 + 1
 p_8
      = -x_8 + x_5
      = -2x_9 + 1
 p_9
      = -x_{10} - x_9 + 1
p_{10}
      = -x_{11} + x_9
p_{11}
      = -x_{12} + x_9
p_{12}
      = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
     = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{14}
      = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
p_{15}
      = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
      = x_{17} + 1
p_{17}
      = x_{18} + 1
p_{18}
      = x_{19} + 1
      = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
      = -x_{21}x_{17} + x_{20}x_{18}
p_{21}
```

```
p_{22} = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
p_{23} = -x_{23}x_{17} + x_{20}
```

1.17 Triangulation, step 17

Choosing variable: Trying the variable with index 7.

Variable x_7 selected: The number of polynomials with this variable, with indexes from 1 to 7, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_7 from all other polynomials by reducing them with polynomial p_5 from previous step.

Finished a triangulation step, the current system is:

```
p_1
     = -x_3 + x_1
      = -x_3 + x_2
 p_2
      = x_4 + x_1 -
      = -x_4 + x_2
 p_4
      = -x_6 - x_5 + 1
 p_5
      = -x_6 + x_5
      = -x_7 + x_5
 p_7
      = -x_8 + x_5
 p_8
      = -2x_9 + 1
      = -x_{10} - x_9 + 1
p_{10}
      = -x_{11} + x_9
p_{11}
      = -x_{12} + x_9
p_{12}
     = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
p_{13}
     = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{14}
      = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
     = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
p_{17}
      = x_{17} + 1
      = x_{18} + 1
p_{18}
p_{19}
      = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
      = -x_{21}x_{17} + x_{20}x_{18}
      = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
     = -x_{23}x_{17} + x_{20}
```

1.18 Triangulation, step 18

Choosing variable: Trying the variable with index 6.

Variable x_6 selected: The number of polynomials with this variable, with indexes from 1 to 6, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_6 from all other polynomials by reducing them with polynomial p_5 from previous step.

Finished a triangulation step, the current system is:

```
p_1 = -x_3 + x_1
      = -x_3 + x_2
 p_2
      = x_4 + x_1 -
      = -x_4 + x_2
 p_4
      = -2x_5 + 1
 p_5
      = -x_6 - x_5 + 1
           -x_7 + x_5
 p_7
      = -x_8 + x_5
 p_8
      = -2x_9 + 1
      = -x_{10} - x_9 + 1
p_{10}
      = -x_{11} + x_9
p_{11}
      = -x_{12} + x_9
p_{12}
      = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
p_{13}
      = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{14}
      = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
      = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
      = x_{17} + 1
p_{17}
      = x_{18} + 1
p_{18}
      = x_{19} + 1
p_{19}
      = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
      = -x_{21}x_{17} + x_{20}x_{18}
      = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
p_{23}
           -x_{23}x_{17} + x_{20}
```

1.19 Triangulation, step 19

Choosing variable: Trying the variable with index 5.

Variable x_5 selected: The number of polynomials with this variable, with indexes from 1 to 5, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_5 . No reduction needed.

The triangular system has not been changed.

1.20 Triangulation, step 20

Choosing variable: Trying the variable with index 4.

Variable x_4 selected: The number of polynomials with this variable, with indexes from 1 to 4, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_4 from all other polynomials by reducing them with polynomial p_3 from previous step.

Finished a triangulation step, the current system is:

```
= -x_3 + x_1
     = -x_3 + x_2
 p_2
      = x_2 + x_1 -
 p_3
      = x_4 + x_1 -
      = -2x_5 + 1
 p_5
      = -x_6 - x_5 + 1
 p_6
      = -x_7 + x_5
      = -x_8 + x_5
 p_8
      = -2x_9 + 1
 p_9
      = -x_{10} - x_9 + 1
p_{10}
      = -x_{11} + x_9
p_{11}
      = -x_{12} + x_9
p_{12}
      = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
p_{13}
p_{14} = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
      = x_{15} - x_9x_5 + x_9x_1 + x_5x_2
p_{15}
      = x_{16} + x_{14}x_2 + x_{13}x_1
      = x_{17} + 1
p_{17}
      = x_{18} + 1
p_{18}
      = x_{19} + 1
p_{19}
      = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
      = -x_{21}x_{17} + x_{20}x_{18}
p_{21}
      = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
     = -x_{23}x_{17} + x_{20}
p_{23}
```

1.21 Triangulation, step 21

Choosing variable: Trying the variable with index 3.

Variable x_3 selected: The number of polynomials with this variable, with indexes from 1 to 3, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_3 from all other polynomials by reducing them with polynomial p_1 from previous step.

Finished a triangulation step, the current system is:

```
= x_2 + x_1 -
     = -x_2 + x_1
 p_2
      = -x_3 + x_1
 p_3
      = x_4 + x_1 -
      = -2x_5 + 1
 p_5
      = -x_6 - x_5 + 1
 p_6
      = -x_7 + x_5
      = -x_8 + x_5
 p_8
      = -2x_9 + 1
 p_9
      = -x_{10} - x_9 + 1
p_{10}
      = -x_{11} + x_9
p_{11}
      = -x_{12} + x_9
p_{12}
      = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
      = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
p_{14}
      = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
p_{15}
      = x_{16} + x_{14}x_2 + x_{13}x_1
      = x_{17} + 1
p_{17}
      = x_{18} + 1
p_{18}
      = x_{19} + 1
      = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
      = -x_{21}x_{17} + x_{20}x_{18}
p_{21}
      = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
     = -x_{23}x_{17} + x_{20}
```

1.22 Triangulation, step 22

Choosing variable: Trying the variable with index 2.

Variable x_2 selected: The number of polynomials with this variable, with indexes from 1 to 2, is 2.

Minimal degrees: 2 polynomial(s) with degree 1.

Polynomial with linear degree: Removing variable x_2 from all other polynomials by reducing them with polynomial p_1 from previous step.

$$p_1 = 2x_1 -$$

```
= x_2 + x_1 -
      = -x_3 + x_1
 p_3
      = x_4 + x_1 -
 p_4
      = -2x_5 + 1
      = -x_6 - x_5 + 1
 p_6
      = -x_7 + x_5
 p_7
      = -x_8 + x_5
 p_8
      = -2x_9 + 1
      = -x_{10} - x_9 + 1
p_{10}
      = -x_{11} + x_9
p_{11}
      = -x_{12} + x_9
p_{12}
      = x_{13} + x_{10}x_2 + x_9x_6 - x_6x_2
p_{13}
      = x_{14} + x_{10}x_5 - x_{10}x_1 + x_6x_1
      = x_{15} - x_9 x_5 + x_9 x_1 + x_5 x_2
p_{15}
      = x_{16} + x_{14}x_2 + x_{13}x_1
p_{16}
      = x_{17} + 1
p_{17}
      = x_{18} + 1
p_{18}
      = x_{19} + 1
p_{19}
      = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^2x_{13} - x_{17}^2x_{16}
p_{20}
      = -x_{21}x_{17} + x_{20}x_{18}
p_{21}
      = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}
p_{22}
      = -x_{23}x_{17} + x_{20}
p_{23}
```

1.23 Triangulation, step 23

Choosing variable: Trying the variable with index 1.

Variable x_1 selected: The number of polynomials with this variable, with indexes from 1 to 1, is 1.

Single polynomial with chosen variable: Chosen polynomial is p_1 . No reduction needed.

The triangular system has not been changed.

The triangular system is:

$$p_{1} = 2x_{1} - p_{2} = x_{2} + x_{1} - p_{3} = -x_{3} + x_{1}$$

$$p_{4} = x_{4} + x_{1} - p_{5} = -2x_{5} + 1$$

$$p_{6} = -x_{6} - x_{5} + 1$$

$$p_{7} = -x_{7} + x_{5}$$

$$p_{8} = -x_{8} + x_{5}$$

$$p_{9} = -2x_{9} + 1$$

$$p_{10} = -x_{10} - x_{9} + 1$$

$$p_{11} = -x_{11} + x_{9}$$

$$p_{12} = -x_{12} + x_{9}$$

$$p_{13} = x_{13} + x_{10}x_{2} + x_{9}x_{6} - x_{6}x_{2}$$

$$p_{14} = x_{14} + x_{10}x_{5} - x_{10}x_{1} + x_{6}x_{1}$$

$$p_{15} = x_{15} - x_{9}x_{5} + x_{9}x_{1} + x_{5}x_{2}$$

$$p_{16} = x_{16} + x_{14}x_{2} + x_{13}x_{1}$$

$$p_{17} = x_{17} + 1$$

$$p_{18} = x_{18} + 1$$

$$p_{19} = x_{19} + 1$$

$$p_{20} = -x_{20}x_{19}x_{17}x_{15} - x_{20}x_{18}x_{17}x_{14} - x_{20}x_{17}^{2}x_{13} - x_{17}^{2}x_{16}$$

$$p_{21} = -x_{21}x_{17} + x_{20}x_{18}$$

$$p_{22} = x_{22}x_{15} + x_{21}x_{14} + x_{20}x_{13} + x_{16}$$

$$p_{23} = -x_{23}x_{17} + x_{20}$$

2 Final Remainder

2.1 Final remainder for conjecture geothm_zadatak

Calculating final remainder of the conclusion:

$$g = 9x_{22}^2 + 9x_{21}^2 + 9x_{20}^2 - 3$$

with respect to the triangular system.

1. Pseudo remainder with p_{23} over variable x_{23} :

$$g = 9x_{22}^2 + 9x_{21}^2 + 9x_{20}^2 - 3$$

2. Pseudo remainder with p_{22} over variable x_{22} :

$$\begin{array}{lll} g & = & 9x_{21}^2x_{15}^2 + 9x_{21}^2x_{14}^2 + 18x_{21}x_{20}x_{14}x_{13} + 18x_{21}x_{16}x_{14} + \\ & & 9x_{20}^2x_{15}^2 + 9x_{20}^2x_{13}^2 + 18x_{20}x_{16}x_{13} + 9x_{16}^2 - 3x_{15}^2 \end{array}$$

3. Pseudo remainder with p_{21} over variable x_{21} :

$$g = 9x_{20}^2 x_{18}^2 x_{15}^2 + 9x_{20}^2 x_{18}^2 x_{14}^2 + 18x_{20}^2 x_{18} x_{17} x_{14} x_{13} + 9x_{20}^2 x_{17}^2 x_{15}^2 + 9x_{20}^2 x_{17}^2 x_{13}^2 + 18x_{20} x_{18} x_{17} x_{16} x_{14} + 18x_{20} x_{17}^2 x_{16} x_{13} + 9x_{17}^2 x_{16}^2 - 3x_{17}^2 x_{15}^2$$

4. Pseudo remainder with p_{20} over variable x_{20} :

$$\begin{array}{lll} g & = & 9x_{19}^2x_{17}^4x_{16}^2x_{15}^2 - 3x_{19}^2x_{17}^4x_{15}^4 \\ & & -6x_{19}x_{18}x_{17}^4x_{15}^3x_{14} - 6x_{19}x_{17}^5x_{15}^3x_{13} + \\ & & 9x_{18}^2x_{17}^4x_{16}^2x_{15}^2 - 3x_{18}^2x_{17}^4x_{15}^2x_{14}^2 \\ & & -6x_{18}x_{17}^5x_{15}^2x_{14}x_{13} + 9x_{17}^6x_{16}^2x_{15}^2 \\ & & -3x_{17}^6x_{15}^2x_{13}^2 \end{array}$$

5. Pseudo remainder with p_{19} over variable x_{19} :

$$\begin{array}{lll} g & = & 9x_{18}^2x_{17}^4x_{16}^2x_{15}^2 - 3x_{18}^2x_{17}^4x_{15}^2x_{14}^2 \\ & & -6x_{18}x_{17}^5x_{15}^2x_{14}x_{13} + 6x_{18}x_{17}^4x_{15}^3x_{14} + \\ & 9x_{17}^6x_{16}^2x_{15}^2 - 3x_{17}^6x_{15}^2x_{13}^2 + 6x_{17}^5x_{15}^3x_{13} + \\ & 9x_{17}^4x_{16}^2x_{15}^2 - 3x_{17}^4x_{15}^4 \end{array}$$

6. Pseudo remainder with p_{18} over variable x_{18} :

$$\begin{array}{lcl} g & = & 9x_{17}^6x_{16}^2x_{15}^2-3x_{17}^6x_{15}^2x_{13}^2+6x_{17}^5x_{15}^3x_{13}+\\ & & 6x_{17}^5x_{15}^2x_{14}x_{13}+18x_{17}^4x_{16}^2x_{15}^2-3x_{17}^4x_{15}^4\\ & & -6x_{17}^4x_{15}^3x_{14}-3x_{17}^4x_{15}^2x_{14}^2 \end{array}$$

7. Pseudo remainder with p_{17} over variable x_{17} :

$$g = 27x_{16}^2x_{15}^2 - 3x_{15}^4 - 6x_{15}^3x_{14} - 6x_{15}^3x_{13} - 3x_{15}^2x_{14}^2 - 6x_{15}^2x_{14}x_{13} - 3x_{15}^2x_{13}^2$$

8. Pseudo remainder with p_{16} over variable x_{16} :

$$g = -3x_{15}^4 - 6x_{15}^3x_{14} - 6x_{15}^3x_{13} + 27x_{15}^2x_{14}^2x_2^2$$
$$-3x_{15}^2x_{14}^2 + 54x_{15}^2x_{14}x_{13}x_2x_1 - 6x_{15}^2x_{14}x_{13} +$$
$$27x_{15}^2x_{13}^2x_1^2 - 3x_{15}^2x_{13}^2$$

9. Pseudo remainder with p_{15} over variable x_{15} :

Polynomial too big for output (text size is 2459 characters, number of terms is 71)

10. Pseudo remainder with p_{14} over variable x_{14} :

Polynomial too big for output (text size is 5536 characters, number of terms is 145)

11. Pseudo remainder with p_{13} over variable x_{13} :

Polynomial too big for output (text size is 6180 characters, number of terms is 166)

12. Pseudo remainder with p_{12} over variable x_{12} :

Polynomial too big for output (text size is 6180 characters, number of terms is 166)

- 13. Pseudo remainder with p_{11} over variable x_{11} :

 Polynomial too big for output (text size is 6180 characters, number of terms is 166)
- 14. Pseudo remainder with p_{10} over variable x_{10} :

 Polynomial too big for output (text size is 6970 characters, number of terms is 209)
- 15. Pseudo remainder with p_9 over variable x_9 :

$$\begin{array}{lll} g&=&-48x_{6}^{2}x_{5}^{2}x_{2}^{4}+96x_{6}^{2}x_{5}^{2}x_{2}^{3}x_{1}+\\ &96x_{6}^{2}x_{5}^{2}x_{2}^{3}+60x_{6}^{2}x_{5}^{2}x_{2}^{2}x_{1}^{2}\\ &-144x_{6}^{2}x_{5}^{2}x_{2}^{2}x_{1}-72x_{6}^{2}x_{5}^{2}x_{2}^{2}\\ &-60x_{6}^{2}x_{5}^{2}x_{2}x_{1}^{2}+72x_{6}^{2}x_{5}^{2}x_{2}x_{1}+24x_{6}^{2}x_{5}^{2}x_{2}+\\ &15x_{6}^{2}x_{5}^{2}x_{1}^{2}-12x_{6}^{2}x_{5}^{2}x_{1}-3x_{6}^{2}x_{5}^{2}\\ &-48x_{6}^{2}x_{5}x_{2}^{3}x_{1}+96x_{6}^{2}x_{5}x_{2}^{2}x_{1}^{2}+\\ &72x_{6}^{2}x_{5}x_{2}^{2}x_{1}+60x_{6}^{2}x_{5}x_{2}x_{1}^{3}\\ &-96x_{6}^{2}x_{5}x_{2}x_{1}^{2}-36x_{6}^{2}x_{5}x_{2}x_{1}-30x_{6}^{2}x_{5}x_{1}^{3}+\\ &24x_{6}^{2}x_{5}x_{1}^{2}+6x_{6}^{2}x_{5}x_{1}-12x_{6}^{2}x_{2}^{2}x_{1}^{2}+\\ &24x_{6}^{2}x_{2}x_{1}^{3}+12x_{6}^{2}x_{2}x_{1}^{2}+15x_{6}^{2}x_{1}^{4}\\ &-12x_{6}^{2}x_{1}^{3}-3x_{6}^{2}x_{1}^{2}+96x_{6}x_{5}^{3}x_{2}^{2}+\\ &120x_{6}x_{5}^{3}x_{2}^{2}x_{1}-144x_{6}x_{5}^{3}x_{2}^{3}-120x_{6}x_{5}^{3}x_{2}^{2}x_{1}+\\ &72x_{6}x_{5}^{3}x_{2}^{2}+30x_{6}x_{5}^{3}x_{2}x_{1}-12x_{6}x_{5}^{3}x_{2}+\\ &48x_{6}x_{5}^{2}x_{2}^{2}+48x_{6}x_{5}^{2}x_{2}^{3}x_{1}-72x_{6}x_{5}^{2}x_{2}^{3}+\\ &120x_{6}x_{5}^{2}x_{2}^{2}x_{1}^{2}-48x_{6}x_{5}^{2}x_{2}^{2}x_{1}+\\ &36x_{6}x_{5}^{2}x_{2}^{2}-60x_{6}x_{5}^{2}x_{2}x_{1}^{2}+12x_{6}x_{5}^{2}x_{2}x_{1}\\ &-6x_{6}x_{5}^{2}x_{2}+48x_{6}x_{5}x_{2}^{2}x_{1}^{2}+12x_{6}x_{5}x_{2}x_{1}^{2}+\\ &12x_{6}x_{5}x_{2}x_{1}+12x_{6}x_{2}^{2}x_{1}^{2}-12x_{6}x_{2}x_{1}^{3}-6x_{6}x_{2}x_{1}^{2}+\\ &60x_{5}^{4}x_{2}^{4}-60x_{5}^{4}x_{2}^{3}+15x_{5}^{4}x_{2}^{2}-48x_{5}^{2}x_{2}^{3}+\\ &60x_{5}^{2}x_{2}^{3}x_{1}+48x_{5}^{3}x_{2}^{3}-30x_{5}^{3}x_{2}^{2}x_{1}\\ &-12x_{5}^{3}x_{2}^{2}-12x_{5}^{2}x_{2}^{4}-48x_{5}^{2}x_{2}^{3}x_{1}+12x_{5}^{2}x_{2}^{3}+\\ &15x_{5}^{2}x_{2}^{2}x_{1}^{2}+24x_{5}^{2}x_{2}^{2}x_{1}-3x_{5}^{2}x_{2}^{2}\\ &-12x_{5}x_{2}^{3}x_{1}-12x_{5}x_{2}^{2}x_{1}^{2}+6x_{5}x_{2}^{2}x_{1}^{2}+6x_{5}x_{2}^{2}x_{1}^{2}-3x_{5}^{2}x_{1}^{2}\\ &-12x_{5}x_{2}^{3}x_{1}-12x_{5}x_{2}^{2}x_{1}^{2}+6x_{5}x_{2}^{2}x_{1}^{2}-3x_{5}^{2}x_{1}^{2}\\ &-12x_{5}x_{2}^{3}x_{1}-12x_{5}x_{2}^{2}x_{1}^{2}+6x_{5}x_{2}$$

16. Pseudo remainder with p_8 over variable x_8 :

$$g = -48x_6^2x_5^2x_2^4 + 96x_6^2x_5^2x_2^3x_1 +$$

$$96x_{6}^{2}x_{5}^{2}x_{2}^{3} + 60x_{6}^{2}x_{5}^{2}x_{2}^{2}x_{1}^{2} \\ -144x_{6}^{2}x_{5}^{2}x_{2}^{2}x_{1} - 72x_{6}^{2}x_{5}^{2}x_{2}^{2} \\ -60x_{6}^{2}x_{5}^{2}x_{2}x_{1}^{2} + 72x_{6}^{2}x_{5}^{2}x_{2}x_{1} + 24x_{6}^{2}x_{5}^{2}x_{2} + \\ 15x_{6}^{2}x_{5}^{2}x_{1}^{2} - 12x_{6}^{2}x_{5}^{2}x_{1} - 3x_{6}^{2}x_{5}^{2} \\ -48x_{6}^{2}x_{5}x_{2}^{3}x_{1} + 96x_{6}^{2}x_{5}x_{2}^{2}x_{1}^{2} + \\ 72x_{6}^{2}x_{5}x_{2}^{2}x_{1} + 60x_{6}^{2}x_{5}x_{2}x_{1}^{3} \\ -96x_{6}^{2}x_{5}x_{2}^{2}x_{1}^{2} - 36x_{6}^{2}x_{5}x_{2}x_{1}^{2} - 30x_{6}^{2}x_{5}x_{1}^{3} + \\ 24x_{6}^{2}x_{5}x_{1}^{2} + 6x_{6}^{2}x_{5}x_{1} - 12x_{6}^{2}x_{2}^{2}x_{1}^{2} + \\ 24x_{6}^{2}x_{2}x_{1}^{3} + 12x_{6}^{2}x_{2}x_{1}^{2} + 15x_{6}^{2}x_{1}^{4} \\ -12x_{6}^{2}x_{3}^{3} - 3x_{6}^{2}x_{1}^{2} + 96x_{6}x_{5}^{3}x_{2}^{4} + \\ 120x_{6}x_{5}^{3}x_{2}^{2}x_{1} - 144x_{6}x_{5}^{3}x_{2}^{3} - 120x_{6}x_{5}^{3}x_{2}^{2}x_{1} + \\ 72x_{6}x_{3}^{3}x_{2}^{2} + 30x_{6}x_{5}^{3}x_{2}x_{1} - 12x_{6}x_{5}^{3}x_{2} + \\ 48x_{6}x_{5}^{2}x_{2}^{2} + 48x_{6}x_{5}^{2}x_{2}^{3}x_{1} - 72x_{6}x_{5}^{2}x_{2}^{3} + \\ 120x_{6}x_{5}^{2}x_{2}^{2}x_{1}^{2} - 48x_{6}x_{5}^{2}x_{2}^{2}x_{1} + \\ 36x_{6}x_{5}^{2}x_{2}^{2}x_{1}^{2} - 48x_{6}x_{5}^{2}x_{2}^{2}x_{1} + \\ 36x_{6}x_{5}^{2}x_{2}^{2}x_{1} + 30x_{6}x_{5}x_{2}x_{1}^{3} + 12x_{6}x_{5}x_{2}x_{1}^{2} + \\ -48x_{6}x_{5}x_{2}x_{1} + 12x_{6}x_{2}^{2}x_{1}^{2} - 12x_{6}x_{5}x_{2}x_{1}^{2} + \\ 12x_{6}x_{5}x_{2}x_{1} + 12x_{6}x_{2}^{2}x_{1}^{2} - 12x_{6}x_{2}x_{1}^{3} - 6x_{6}x_{2}x_{1}^{2} + \\ 60x_{5}^{4}x_{2}^{4} - 60x_{5}^{4}x_{2}^{3} + 15x_{5}^{4}x_{2}^{2} - 48x_{5}^{3}x_{2}^{2} + \\ 60x_{5}^{2}x_{2}^{2}x_{1} + 48x_{5}^{3}x_{2}^{3} - 30x_{5}^{3}x_{2}^{2}x_{1} + \\ -12x_{5}^{2}x_{2}^{2} - 12x_{5}^{2}x_{2}^{4} - 48x_{5}^{2}x_{2}^{3}x_{1} + 12x_{5}^{2}x_{2}^{3} + \\ 15x_{5}^{2}x_{2}^{2}x_{1}^{2} + 24x_{5}^{2}x_{2}^{2}x_{1} - 3x_{5}^{2}x_{2}^{2} - \\ -12x_{5}^{2}x_{2}^{2}x_{1}^{2} - 12x_{5}^{2}x_{2}^{2}x_{1}^{2} - 3x_{5}^{2}x_{1}^{2} - \\ 12x_{5}^{2}x_{2}^{2}x_{1}^{2} - 12x_{5}^{2}x_{2}^{2}x_{1}^{2} + 6x_{5}^{2}x_{2}^{2}x_{1}^{2$$

17. Pseudo remainder with p_7 over variable x_7 :

$$\begin{array}{ll}g&=&-48x_{6}^2x_{5}^2x_{2}^4+96x_{6}^2x_{5}^2x_{2}^3x_{1}+\\&96x_{6}^2x_{5}^2x_{2}^3+60x_{6}^2x_{5}^2x_{2}^2x_{1}^2\\&-144x_{6}^2x_{5}^2x_{2}^2x_{1}-72x_{6}^2x_{5}^2x_{2}^2\\&-60x_{6}^2x_{5}^2x_{2}x_{1}^2+72x_{6}^2x_{5}^2x_{2}x_{1}+24x_{6}^2x_{5}^2x_{2}+\\&15x_{6}^2x_{5}^2x_{1}^2-12x_{6}^2x_{5}^2x_{1}-3x_{6}^2x_{5}^2\\&-48x_{6}^2x_{5}x_{2}^3x_{1}+96x_{6}^2x_{5}x_{2}^2x_{1}^2+\\&72x_{6}^2x_{5}x_{2}^2x_{1}+60x_{6}^2x_{5}x_{2}x_{1}^3\\&-96x_{6}^2x_{5}x_{2}x_{1}^2-36x_{6}^2x_{5}x_{2}x_{1}-30x_{6}^2x_{5}x_{1}^3+\\&24x_{6}^2x_{5}x_{1}^2+6x_{6}^2x_{5}x_{1}-12x_{6}^2x_{2}^2x_{1}^2+\\&24x_{6}^2x_{2}x_{1}^3+12x_{6}^2x_{2}x_{1}^2+15x_{6}^2x_{1}^4\\&-12x_{6}^2x_{1}^3-3x_{6}^2x_{1}^2+96x_{6}x_{5}^3x_{2}^4+\\&120x_{6}x_{5}^3x_{2}^3x_{1}-144x_{6}x_{5}^3x_{2}^3-120x_{6}x_{5}^3x_{2}^2x_{1}+\\&72x_{6}x_{5}^3x_{2}^2+30x_{6}x_{5}^3x_{2}x_{1}-12x_{6}x_{5}^3x_{2}+\\&48x_{6}x_{5}^2x_{2}^4+48x_{6}x_{5}^2x_{2}^3x_{1}-72x_{6}x_{5}^2x_{2}^3+\\&\end{array}$$

$$\begin{aligned} &120x_6x_5^2x_2^2x_1^2 - 48x_6x_5^2x_2^2x_1 + \\ &36x_6x_5^2x_2^2 - 60x_6x_5^2x_2x_1^2 + 12x_6x_5^2x_2x_1 \\ &-6x_6x_5^2x_2 + 48x_6x_5x_2^3x_1 - 24x_6x_5x_2^2x_1^2 \\ &-48x_6x_5x_2^2x_1 + 30x_6x_5x_2x_1^3 + 12x_6x_5x_2x_1^2 + \\ &12x_6x_5x_2x_1 + 12x_6x_2^2x_1^2 - 12x_6x_2x_1^3 - 6x_6x_2x_1^2 + \\ &60x_5^4x_2^4 - 60x_5^4x_2^3 + 15x_5^4x_2^2 - 48x_5^3x_2^4 + \\ &60x_5^3x_2^3x_1 + 48x_5^3x_2^3 - 30x_5^3x_2^2x_1 \\ &-12x_5^3x_2^2 - 12x_5^2x_2^4 - 48x_5^2x_2^3x_1 + 12x_5^2x_2^3 + \\ &15x_5^2x_2^2x_1^2 + 24x_5^2x_2^2x_1 - 3x_5^2x_2^2 \\ &-12x_5x_2^3x_1 - 12x_5x_2^2x_1^2 + 6x_5x_2^2x_1 - 3x_2^2x_1^2 \end{aligned}$$

18. Pseudo remainder with p_6 over variable x_6 :

$$\begin{array}{rcl} g&=&-84x_5^4x_2^4-24x_5^4x_2^3x_1+180x_5^4x_2^3+\\ &&60x_5^4x_2^2x_1^2-24x_5^4x_2^2x_1-129x_5^4x_2^2\\ &&-60x_5^4x_2x_1^2+42x_5^4x_2x_1+36x_5^4x_2+15x_5^4x_1^2\\ &&-12x_5^4x_1-3x_5^4+96x_5^3x_2^4-108x_5^3x_2^3x_1\\ &&-216x_5^3x_2^3-144x_5^3x_2^2x_1^2+258x_5^3x_2^2x_1+\\ &&168x_5^3x_2^2+60x_5^3x_2x_1^3+84x_5^3x_2x_1^2\\ &&-162x_5^3x_2x_1-54x_5^3x_2-30x_5^3x_1^3-6x_5^3x_1^2+\\ &&30x_5^3x_1+6x_5^3-12x_5^2x_2^4+144x_5^2x_2^3x_1+\\ &&36x_5^2x_2^3+15x_5^2x_2^2x_1^2-264x_5^2x_2^2x_1\\ &&-39x_5^2x_2^2-126x_5^2x_2x_1^3+72x_5^2x_2x_1^2+\\ &&144x_5^2x_2x_1+18x_5^2x_2+15x_5^2x_1^4+48x_5^2x_1^3\\ &&-36x_5^2x_1^2-24x_5^2x_1-3x_5^2-12x_5x_2^3x_1+\\ &&72x_5x_2^2x_1^2+30x_5x_2^2x_1+54x_5x_2x_1^3-102x_5x_2x_1^2\\ &&-24x_5x_2x_1-30x_5x_1^4-6x_5x_1^3+30x_5x_1^2+6x_5x_1\\ &&-3x_2^2x_1^2+12x_2x_1^3+6x_2x_1^2+15x_1^4-12x_1^3-3x_1^2\\ \end{array}$$

19. Pseudo remainder with p_5 over variable x_5 :

$$g = 60x_2^4 + 240x_2^3x_1 - 108x_2^3 + 360x_2^2x_1^2 - 324x_2^2x_1 + 51x_2^2 + 240x_2x_1^3 - 324x_2x_1^2 + 102x_2x_1 + 60x_1^4 - 108x_1^3 + 51x_1^2 - 3$$

20. Pseudo remainder with p_4 over variable x_4 :

$$g = 60x_2^4 + 240x_2^3x_1 - 108x_2^3 + 360x_2^2x_1^2 - 324x_2^2x_1 + 51x_2^2 + 240x_2x_1^3 - 324x_2x_1^2 + 102x_2x_1 + 60x_1^4 - 108x_1^3 + 51x_1^2 - 3$$

21. Pseudo remainder with p_3 over variable x_3 :

$$g = 60x_2^4 + 240x_2^3x_1 - 108x_2^3 + 360x_2^2x_1^2 - 324x_2^2x_1 + 51x_2^2 + 240x_2x_1^3 - 324x_2x_1^2 + 102x_2x_1 + 60x_1^4 - 108x_1^3 + 51x_1^2 - 3$$

22. Pseudo remainder with p_2 over variable x_2 :

$$g = 0$$

23. Pseudo remainder with p_1 over variable x_1 :

$$g = 0$$

3 Prover results

Status: Theorem has been proved.

Space Complexity: The biggest polynomial obtained during prover execution contains 209 terms.

Time Complexity: Time spent by the prover is 0.212 seconds.

4 NDG Conditions

NDG Conditions in readable form

• Failed to translate NDG Conditions to readable form