

```
In[®]:= last5 = { (-15 + x)^3 (-11 + x)^15 (5 + x)^42, (-13 + x)^9 (-11 + x)^6 (-9 + x)^3 (5 + x)^42,
(-17 + x) (-13 + x)^3 (-11 + x)^14 (5 + x)^42, (-15 + x) (-13 + x)^6 (-11 + x)^9
(-9 + x)^2 (5 + x)^42, (-13 + x)^6 (-11 + x)^10 (5 + x)^42 (109 - 22 x + x^2) };
```

```
In[®]:= interlacingpolylast5 = Array[intpolylast5, 5];
Coeffmatlast5 = Array[Coeffflast5, 5];
gveclast5 = Array[glast5, 5];
```

```
i =;
last5[[i]]
interlacingpolylast5[[i]] =;
Coeffmatlast5[[i]] =
CoefficientList[Factor[interlacingpolylast5[[i]] / mu[last5[[i]]], x];
Coeffmatlast5[[i]] // MatrixForm
gveclast5[[i]] = CoefficientList[D[last5[[i]], x] / mu[last5[[i]]] // Factor, x]
Array[c,.].Transpose[Coeffmatlast5[[i]]]
Array[c,.].gveclast5[[i]]
i
Flatten[Array[c,.] /. FindInstance[ < 0 &&, Array[c,.], Integers]]
```

```
In[®]:= i = 1;
last5[[i]]
interlacingpolylast5[[i]] = { (-15 + x)^2 (-11 + x)^14 (5 + x)^41 (94 - 21 x + x^2) };
Coeffmatlast5[[i]] =
CoefficientList[Factor[interlacingpolylast5[[i]] / mu[last5[[i]]], x];
```

```
Out[®]= (-15 + x)^3 (-11 + x)^15 (5 + x)^42
```

```
In[®]:= Coeffmatlast5[[i]] // MatrixForm
Out[®]//MatrixForm=
( 94 -21 1 )
```

```
In[®]:= gveclast5[[i]] = CoefficientList[D[last5[[i]], x] / mu[last5[[i]]] // Factor, x]
Out[®]= {5640, -1260, 60}
```

```
In[®]:= Array[c, 3].Transpose[Coeffmatlast5[[i]]]
Out[®]= {94 c[1] -21 c[2] +c[3]}
```

```
In[®]:= Array[c, 3].gveclast5[i]
Out[®]= 5640 c[1] - 1260 c[2] + 60 c[3]

In[®]:= i
Flatten[Array[c, 3] /. FindInstance[5640 c[1] - 1260 c[2] + 60 c[3] < 0 &&
94 c[1] - 21 c[2] + c[3] ≥ 0, Array[c, 3], Integers]]

Out[®]= 1

Out[®]= {c[1], c[2], c[3]}
```

```
In[®]:= i = 2;
last5[i]
interlacingpolylast5[i] = { (-13 + x)^8 (-11 + x)^7 (-9 + x)^2 (-6 + x) (5 + x)^41,
(-13 + x)^8 (-11 + x)^5 (-9 + x)^3 (5 + x)^41 (82 - 19 x + x^2)};
Coeffmatlast5[i] =
CoefficientList[Factor[interlacingpolylast5[i]] / mu[last5[i]], x];
Out[®]= (-13 + x)^9 (-11 + x)^6 (-9 + x)^3 (5 + x)^42

In[®]:= Coeffmatlast5[i] // MatrixForm
Out[®]/MatrixForm=

$$\begin{pmatrix} -726 & 253 & -28 & 1 \\ -738 & 253 & -28 & 1 \end{pmatrix}$$


In[®]:= gveclast5[i] = CoefficientList[D[last5[i]], x] / mu[last5[i]] // Factor, x
Out[®]= {-43944, 15180, -1680, 60}

In[®]:= Solve[Array[n, 2].Coeffmatlast5[2] == {-43944, 15180, -1680, 60}, Array[n, 2]]
Out[®]= {{n[1] → 28, n[2] → 32}}

In[®]:= Array[c, 4].Transpose[Coeffmatlast5[i]]
Out[®]= {-726 c[1] + 253 c[2] - 28 c[3] + c[4], -738 c[1] + 253 c[2] - 28 c[3] + c[4]}

In[®]:= Array[c, 4].gveclast5[i]
Out[®]= -43944 c[1] + 15180 c[2] - 1680 c[3] + 60 c[4]

In[®]:= i
Flatten[
Array[c, 4] /. FindInstance[-43944 c[1] + 15180 c[2] - 1680 c[3] + 60 c[4] < 0 &&
-726 c[1] + 253 c[2] - 28 c[3] + c[4] ≥ 0 &&
-738 c[1] + 253 c[2] - 28 c[3] + c[4] ≥ 0, Array[c, 4], Integers]]

Out[®]= 2

Out[®]= {c[1], c[2], c[3], c[4]}
```

$$(x + 5)^{14} (x - 11)^6$$

In[1]:= 32 * 31

Out[1]= 992

In[2]:= 14 (-5)^2 + 6 x 11^2

Out[2]= 1076

In[3]:= i = 3;

last5[i]

$$\text{interlacingpolylast5}[i] = \{ (-13 + x)^3 (-11 + x)^{13} (5 + x)^{41} (106 - 23 x + x^2), \\ (-13 + x)^2 (-11 + x)^{13} (5 + x)^{41} (-1382 + 405 x - 36 x^2 + x^3), \\ (-17 + x) (-13 + x)^2 (-11 + x)^{13} (5 + x)^{41} (82 - 19 x + x^2) \};$$

Coeffmatlast5[i] =

CoefficientList[Factor[interlacingpolylast5[i]] / mu[last5[i]], x];

Out[3]= (-17 + x) (-13 + x)^3 (-11 + x)^{14} (5 + x)^{42}

In[4]:= Coeffmatlast5[i] // MatrixForm

Out[4]/MatrixForm=

$$\begin{pmatrix} -1378 & 405 & -36 & 1 \\ -1382 & 405 & -36 & 1 \\ -1394 & 405 & -36 & 1 \end{pmatrix}$$

In[5]:= gveclast5[i] = CoefficientList[D[last5[i], x] / mu[last5[i]] // Factor, x]

Out[5]= {-83112, 24300, -2160, 60}

In[6]:= Solve[Array[n, 3].Coeffmatlast5[3] == gveclast5[3] && n[1] ≥ 0 && n[2] ≥ 0 && n[3] ≥ 0, Array[n, 3], Integers] // Length

Out[6]= 12

In[7]:= Array[c, 4].Transpose[Coeffmatlast5[i]]

Out[7]= {-1378 c[1] + 405 c[2] - 36 c[3] + c[4], \\ -1382 c[1] + 405 c[2] - 36 c[3] + c[4], -1394 c[1] + 405 c[2] - 36 c[3] + c[4]}

In[8]:= Array[c, 4].gveclast5[i]

Out[8]= -83112 c[1] + 24300 c[2] - 2160 c[3] + 60 c[4]

```

In[®]:= i
Flatten[
  Array[c, 4] /. FindInstance[-83112 c[1] + 24300 c[2] - 2160 c[3] + 60 c[4] < 0 &&
  -1378 c[1] + 405 c[2] - 36 c[3] + c[4] ≥ 0 && -1382 c[1] + 405 c[2] - 36 c[3] + c[4] ≥
  0 && -1394 c[1] + 405 c[2] - 36 c[3] + c[4] ≥ 0, Array[c, 4], Integers]]
Out[®]= 3
Out[®]= {c[1], c[2], c[3], c[4]}

In[®]:= feasibleinterlacingpolylist[
  (-13 + x)^2 (-11 + x)^13 (5 + x)^41 (-1382 + 405 x - 36 x^2 + x^3)] // Length
Out[®]= 105

In[®]:= listinterlacingf2i3 = {(-13 + x) (8559 - 3878 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (-7 + x) (-1225 + 379 x - 35 x^2 + x^3),
  (-13 + x) (8591 - 3878 x + 624 x^2 - 42 x^3 + x^4), (-13 + x)
  (8423 - 3870 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8439 - 3870 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (89 - 22 x + x^2) (95 - 20 x + x^2), (-13 + x) (8471 - 3870 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (123 - 24 x + x^2) (69 - 18 x + x^2), (-13 + x) (8503 - 3870 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (-7 + x) (-1217 + 379 x - 35 x^2 + x^3), (-13 + x)
  (8535 - 3870 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8303 - 3862 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8319 - 3862 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-5 + x)
  (-1667 + 439 x - 37 x^2 + x^3), (-13 + x) (8351 - 3862 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8367 - 3862 x + 624 x^2 - 42 x^3 + x^4), (-13 + x)
  (8383 - 3862 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8399 - 3862 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8415 - 3862 x + 624 x^2 - 42 x^3 + x^4), (-13 + x)
  (8431 - 3862 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8167 - 3854 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8183 - 3854 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-9 + x)
  (-911 + 327 x - 33 x^2 + x^3), (-13 + x) (8215 - 3854 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8231 - 3854 x + 624 x^2 - 42 x^3 + x^4), (-13 + x)
  (8247 - 3854 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8263 - 3854 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8279 - 3854 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-5 + x)
  (-1659 + 439 x - 37 x^2 + x^3), (-13 + x) (8311 - 3854 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8327 - 3854 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-11 + x)
  (-733 + 283 x - 31 x^2 + x^3), (-13 + x) (8079 - 3846 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8095 - 3846 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8111 - 3846 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (-9 + x) (-903 + 327 x - 33 x^2 + x^3), (-13 + x)
  (8143 - 3846 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8159 - 3846 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8175 - 3846 x + 624 x^2 - 42 x^3 + x^4), (-13 + x)
  (8191 - 3846 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8207 - 3846 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (8223 - 3846 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-11 + x)
  (-725 + 283 x - 31 x^2 + x^3), (-13 + x) (7991 - 3838 x + 624 x^2 - 42 x^3 + x^4),
  (-13 + x) (157 - 26 x + x^2) (51 - 16 x + x^2), (-13 + x) (8023 - 3838 x + 624 x^2 - 42 x^3 + x^4),

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$$\begin{aligned}
& (-13 + x) (8039 - 3838 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-895 + 327 x - 33 x^2 + x^3), \\
& (-13 + x) (8071 - 3838 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) \\
& \quad (8087 - 3838 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (8103 - 3838 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (8119 - 3838 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-11 + x) \\
& \quad (-717 + 283 x - 31 x^2 + x^3), (-13 + x) (7903 - 3830 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7919 - 3830 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) \\
& \quad (7935 - 3830 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (7951 - 3830 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7967 - 3830 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-9 + x) \\
& \quad (-887 + 327 x - 33 x^2 + x^3), (-13 + x) (7999 - 3830 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (8015 - 3830 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-11 + x) \\
& \quad (-709 + 283 x - 31 x^2 + x^3), (-13 + x) (7815 - 3822 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (191 - 28 x + x^2) (41 - 14 x + x^2), (-13 + x) (7847 - 3822 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7863 - 3822 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7879 - 3822 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7895 - 3822 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-879 + 327 x - 33 x^2 + x^3), (-13 + x) (-11 + x) \\
& \quad (-701 + 283 x - 31 x^2 + x^3), (-13 + x) (7727 - 3814 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7743 - 3814 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) \\
& \quad (7759 - 3814 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (7775 - 3814 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7791 - 3814 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) \\
& \quad (7807 - 3814 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (7823 - 3814 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (-11 + x)^2 (63 - 20 x + x^2), (-13 + x) (7639 - 3806 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7655 - 3806 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7671 - 3806 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7687 - 3806 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7703 - 3806 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7719 - 3806 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-685 + 283 x - 31 x^2 + x^3), \\
& (-13 + x) (7551 - 3798 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (161 - 26 x + x^2) (47 - 16 x + x^2), \\
& (-13 + x) (7583 - 3798 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7599 - 3798 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7615 - 3798 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-11 + x) \\
& \quad (-677 + 283 x - 31 x^2 + x^3), (-13 + x) (7463 - 3790 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7479 - 3790 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) \\
& \quad (7495 - 3790 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (7511 - 3790 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-669 + 283 x - 31 x^2 + x^3), (-13 + x) \\
& \quad (7375 - 3782 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (7391 - 3782 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7407 - 3782 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-11 + x) \\
& \quad (-661 + 283 x - 31 x^2 + x^3), (-13 + x) (7287 - 3774 x + 624 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (7303 - 3774 x + 624 x^2 - 42 x^3 + x^4), (-13 + x) (-11 + x) \\
& \quad (-653 + 283 x - 31 x^2 + x^3), (-13 + x) (7199 - 3766 x + 624 x^2 - 42 x^3 + x^4),
\end{aligned}$$

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(-15 + x) (-13 + x) (-11 + x) (43 - 16 x + x2) }};

Length[listinterlacingf2i3]

Out[=] 105

In[=]:= listinterlacingf2i3coeffmat = CoefficientList[listinterlacingf2i3, x];
listinterlacingf2i3coeffmat // Dimensions

Out[=] {105, 6}

In[=]:= CoefficientList[D[(-13 + x)2 (-11 + x)13 (5 + x)41 (-1382 + 405 x - 36 x2 + x3), x] /
mu[(-13 + x)2 (-11 + x)13 (5 + x)41 (-1382 + 405 x - 36 x2 + x3)] // Factor, x]

Out[=] {-6 493 281, 3 465 775, -706 786, 69 030, -3245, 59}

In[=]:= Array[c, 6].Transpose[listinterlacingf2i3coeffmat]

Out[=] {-111 267 c[1] + 58 973 c[2] - 11 990 c[3] + 1170 c[4] - 55 c[5] + c[6],
-111 475 c[1] + 58 989 c[2] - 11 990 c[3] + 1170 c[4] - 55 c[5] + c[6],
-111 683 c[1] + 59 005 c[2] - 11 990 c[3] + 1170 c[4] - 55 c[5] + c[6],
-109 499 c[1] + 58 733 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-109 707 c[1] + 58 749 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-109 915 c[1] + 58 765 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-110 123 c[1] + 58 781 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-110 331 c[1] + 58 797 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-110 539 c[1] + 58 813 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-110 747 c[1] + 58 829 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-110 955 c[1] + 58 845 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6],
-107 939 c[1] + 58 509 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-108 147 c[1] + 58 525 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-108 355 c[1] + 58 541 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-108 563 c[1] + 58 557 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-108 771 c[1] + 58 573 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-108 979 c[1] + 58 589 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-109 187 c[1] + 58 605 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-109 395 c[1] + 58 621 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-109 603 c[1] + 58 637 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6],
-106 171 c[1] + 58 269 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-106 379 c[1] + 58 285 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-106 587 c[1] + 58 301 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-106 795 c[1] + 58 317 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-107 003 c[1] + 58 333 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-107 211 c[1] + 58 349 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-107 419 c[1] + 58 365 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-107 627 c[1] + 58 381 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-107 835 c[1] + 58 397 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-108 043 c[1] + 58 413 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-108 251 c[1] + 58 429 c[2] - 11 966 c[3] + 1170 c[4] - 55 c[5] + c[6],
-104 819 c[1] + 58 061 c[2] - 11 958 c[3] + 1170 c[4] - 55 c[5] + c[6],
-105 027 c[1] + 58 077 c[2] - 11 958 c[3] + 1170 c[4] - 55 c[5] + c[6],
-105 235 c[1] + 58 093 c[2] - 11 958 c[3] + 1170 c[4] - 55 c[5] + c[6],

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$-105\,443 c[1] + 58\,109 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-105\,651 c[1] + 58\,125 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-105\,859 c[1] + 58\,141 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-106\,067 c[1] + 58\,157 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-106\,275 c[1] + 58\,173 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-106\,483 c[1] + 58\,189 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-106\,691 c[1] + 58\,205 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-106\,899 c[1] + 58\,221 c[2] - 11\,958 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-103\,675 c[1] + 57\,869 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-103\,883 c[1] + 57\,885 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-104\,091 c[1] + 57\,901 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-104\,299 c[1] + 57\,917 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-104\,507 c[1] + 57\,933 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-104\,715 c[1] + 57\,949 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-104\,923 c[1] + 57\,965 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-105\,131 c[1] + 57\,981 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-105\,339 c[1] + 57\,997 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-105\,547 c[1] + 58\,013 c[2] - 11\,950 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,531 c[1] + 57\,677 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,739 c[1] + 57\,693 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,947 c[1] + 57\,709 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-103\,155 c[1] + 57\,725 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-103\,363 c[1] + 57\,741 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-103\,571 c[1] + 57\,757 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-103\,779 c[1] + 57\,773 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-103\,987 c[1] + 57\,789 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-104\,195 c[1] + 57\,805 c[2] - 11\,942 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-101\,387 c[1] + 57\,485 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-101\,595 c[1] + 57\,501 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-101\,803 c[1] + 57\,517 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,011 c[1] + 57\,533 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,219 c[1] + 57\,549 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,427 c[1] + 57\,565 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,635 c[1] + 57\,581 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-102\,843 c[1] + 57\,597 c[2] - 11\,934 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-100\,243 c[1] + 57\,293 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-100\,451 c[1] + 57\,309 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-100\,659 c[1] + 57\,325 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-100\,867 c[1] + 57\,341 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-101\,075 c[1] + 57\,357 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-101\,283 c[1] + 57\,373 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-101\,491 c[1] + 57\,389 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-101\,699 c[1] + 57\,405 c[2] - 11\,926 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-99\,099 c[1] + 57\,101 c[2] - 11\,918 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-99\,307 c[1] + 57\,117 c[2] - 11\,918 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-99\,515 c[1] + 57\,133 c[2] - 11\,918 c[3] + 1170 c[4] - 55 c[5] + c[6]$,
 $-99\,723 c[1] + 57\,149 c[2] - 11\,918 c[3] + 1170 c[4] - 55 c[5] + c[6]$,

```

- 99 931 c[1] + 57 165 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 100 139 c[1] + 57 181 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 100 347 c[1] + 57 197 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 97 955 c[1] + 56 909 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 98 163 c[1] + 56 925 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 98 371 c[1] + 56 941 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 98 579 c[1] + 56 957 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 98 787 c[1] + 56 973 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 98 995 c[1] + 56 989 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 96 811 c[1] + 56 717 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 97 019 c[1] + 56 733 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 97 227 c[1] + 56 749 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 97 435 c[1] + 56 765 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 97 643 c[1] + 56 781 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 95 667 c[1] + 56 525 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 95 875 c[1] + 56 541 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 96 083 c[1] + 56 557 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 96 291 c[1] + 56 573 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 94 523 c[1] + 56 333 c[2] - 11 886 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 94 731 c[1] + 56 349 c[2] - 11 886 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 94 939 c[1] + 56 365 c[2] - 11 886 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 93 379 c[1] + 56 141 c[2] - 11 878 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 93 587 c[1] + 56 157 c[2] - 11 878 c[3] + 1170 c[4] - 55 c[5] + c[6] ,
- 92 235 c[1] + 55 949 c[2] - 11 870 c[3] + 1170 c[4] - 55 c[5] + c[6] }

```

In[®]:= **Array[c, 6].{-6 493 281, 3 465 775, -706 786, 69 030, -3245, 59}**

Out[®]= - 6 493 281 c[1] + 3 465 775 c[2] - 706 786 c[3] + 69 030 c[4] - 3245 c[5] + 59 c[6]

In[®]:= **FindInstance[**

```

- 6 493 281 c[1] + 3 465 775 c[2] - 706 786 c[3] + 69 030 c[4] - 3245 c[5] + 59 c[6] < 0 &&
- 111 267 c[1] + 58 973 c[2] - 11 990 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 111 475 c[1] + 58 989 c[2] - 11 990 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 111 683 c[1] + 59 005 c[2] - 11 990 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 109 499 c[1] + 58 733 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 109 707 c[1] + 58 749 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 109 915 c[1] + 58 765 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 110 123 c[1] + 58 781 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 110 331 c[1] + 58 797 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 110 539 c[1] + 58 813 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 110 747 c[1] + 58 829 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 110 955 c[1] + 58 845 c[2] - 11 982 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 107 939 c[1] + 58 509 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 108 147 c[1] + 58 525 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 108 355 c[1] + 58 541 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 108 563 c[1] + 58 557 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 108 771 c[1] + 58 573 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 108 979 c[1] + 58 589 c[2] - 11 974 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&

```



```

- 102 011 c[1] + 57 533 c[2] - 11 934 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 102 219 c[1] + 57 549 c[2] - 11 934 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 102 427 c[1] + 57 565 c[2] - 11 934 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 102 635 c[1] + 57 581 c[2] - 11 934 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 102 843 c[1] + 57 597 c[2] - 11 934 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 100 243 c[1] + 57 293 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 100 451 c[1] + 57 309 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 100 659 c[1] + 57 325 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 100 867 c[1] + 57 341 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 101 075 c[1] + 57 357 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 101 283 c[1] + 57 373 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 101 491 c[1] + 57 389 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 101 699 c[1] + 57 405 c[2] - 11 926 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 99 099 c[1] + 57 101 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 99 307 c[1] + 57 117 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 99 515 c[1] + 57 133 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 99 723 c[1] + 57 149 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 99 931 c[1] + 57 165 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 100 139 c[1] + 57 181 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 100 347 c[1] + 57 197 c[2] - 11 918 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 97 955 c[1] + 56 909 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 98 163 c[1] + 56 925 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 98 371 c[1] + 56 941 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 98 579 c[1] + 56 957 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 98 787 c[1] + 56 973 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 98 995 c[1] + 56 989 c[2] - 11 910 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 96 811 c[1] + 56 717 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 97 019 c[1] + 56 733 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 97 227 c[1] + 56 749 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 97 435 c[1] + 56 765 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 97 643 c[1] + 56 781 c[2] - 11 902 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 95 667 c[1] + 56 525 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 95 875 c[1] + 56 541 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 96 083 c[1] + 56 557 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 96 291 c[1] + 56 573 c[2] - 11 894 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 94 523 c[1] + 56 333 c[2] - 11 886 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 94 731 c[1] + 56 349 c[2] - 11 886 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 94 939 c[1] + 56 365 c[2] - 11 886 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 93 379 c[1] + 56 141 c[2] - 11 878 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 93 587 c[1] + 56 157 c[2] - 11 878 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0 &&
- 92 235 c[1] + 55 949 c[2] - 11 870 c[3] + 1170 c[4] - 55 c[5] + c[6] ≥ 0,

```

Array[c, 6], Integers]

```

Out[8]= {c[1] → 37 285, c[2] → 484 710,
         c[3] → 6 301 221, c[4] → 0, c[5] → 0, c[6] → 51 115 513 410}

```

```

In[]:= Flatten[Array[c, 6] /. {c[1] → 37 285, c[2] → 484 710,
                             c[3] → 6 301 221, c[4] → 0, c[5] → 0, c[6] → 51 115 513 410}]
Out[]= {37 285, 484 710, 6 301 221, 0, 0, 51 115 513 410}

In[]:= GCD[37 285, 484 710, 6 301 221, 0, 0, 51 115 513 410]
Out[]= 1

In[]:= {37 285, 484 710, 6 301 221, 0, 0, 51 115 513 410}.

Transpose[listinterlacingf2i3coeffmat]
{37 285, 484 710, 6 301 221, 0, 0, 51 115 513 410}.

{-6 493 281, 3 465 775, -706 786, 69 030, -3245, 59}

Out[]= {86 355, 86 435, 86 515, 85 603, 85 683, 85 763, 85 843, 85 923, 86 003, 86 083, 86 163,
        84 931, 85 011, 85 091, 85 171, 85 251, 85 331, 85 411, 85 491, 85 571, 84 179, 84 259,
        84 339, 84 419, 84 499, 84 579, 84 659, 84 739, 84 819, 84 899, 84 979, 83 587, 83 667,
        83 747, 83 827, 83 907, 83 987, 84 067, 84 147, 84 227, 84 307, 84 387, 83 075, 83 155,
        83 235, 83 315, 83 395, 83 475, 83 555, 83 635, 83 715, 83 795, 82 563, 82 643, 82 723,
        82 803, 82 883, 82 963, 83 043, 83 123, 83 203, 82 051, 82 131, 82 211, 82 291,
        82 371, 82 451, 82 531, 82 611, 81 539, 81 619, 81 699, 81 779, 81 859, 81 939,
        82 019, 82 099, 81 027, 81 107, 81 187, 81 267, 81 347, 81 427, 81 507, 80 515,
        80 595, 80 675, 80 755, 80 835, 80 915, 80 003, 80 083, 80 163, 80 243, 80 323,
        79 491, 79 571, 79 651, 79 731, 78 979, 79 059, 79 139, 78 467, 78 547, 77 955}

Out[=] -5 676 351

In[]:= Reverse[{37 285, 484 710, 6 301 221, 0, 0, 51 115 513 410}]
Out[=] {51 115 513 410, 0, 0, 6 301 221, 484 710, 37 285}

In[]:= Solve[Array[n, 3].Coeffmatlast5[[3]] == gveclast5[[3]] && n[1] ≥ 0 && n[2] ≥ 0 && n[3] ≥ 0,
           Array[n, 3], Integers]
Out[=] {{n[1] → 0, n[2] → 44, n[3] → 16}, {n[1] → 3, n[2] → 40, n[3] → 17},
        {n[1] → 6, n[2] → 36, n[3] → 18}, {n[1] → 9, n[2] → 32, n[3] → 19},
        {n[1] → 12, n[2] → 28, n[3] → 20}, {n[1] → 15, n[2] → 24, n[3] → 21},
        {n[1] → 18, n[2] → 20, n[3] → 22}, {n[1] → 21, n[2] → 16, n[3] → 23},
        {n[1] → 24, n[2] → 12, n[3] → 24}, {n[1] → 27, n[2] → 8, n[3] → 25},
        {n[1] → 30, n[2] → 4, n[3] → 26}, {n[1] → 33, n[2] → 0, n[3] → 27}]

In[]:= Solve[Array[n, 3].Coeffmatlast5[[3]] == gveclast5[[3]] && n[1] ≥ 0 && n[2] == 0 && n[3] ≥ 0,
           Array[n, 3], Integers]
Out[=] {{n[1] → 33, n[2] → 0, n[3] → 27} }

(x + 5)^9 (x - 13)^3

In[]:= 27 * 26
Out[=] 702

In[]:= 9 (-5)^2 + 3 × 13^2
Out[=] 732

```

```

In[®]:= i = 4;
last5[[i]]
interlacingpolylast5[[i]] =
{ (-13 + x)^5 (-11 + x)^8 (-9 + x) (5 + x)^41 (11 026 - 4529 x + 673 x^2 - 43 x^3 + x^4),
  (-13 + x)^5 (-11 + x)^8 (-9 + x) (5 + x)^41 (10 966 - 4525 x + 673 x^2 - 43 x^3 + x^4),
  (-13 + x)^6 (-11 + x)^8 (-9 + x)^2 (5 + x)^41 (94 - 21 x + x^2),
  (-13 + x)^5 (-11 + x)^8 (-9 + x) (5 + x)^41 (10 818 - 4513 x + 673 x^2 - 43 x^3 + x^4),
  (-13 + x)^5 (-11 + x)^9 (-9 + x) (5 + x)^41 (-978 + 321 x - 32 x^2 + x^3),
  (-13 + x)^6 (-11 + x)^8 (-10 + x) (-9 + x) (5 + x)^41 (83 - 20 x + x^2),
  (-13 + x)^6 (-11 + x)^9 (-9 + x) (5 + x)^41 (74 - 19 x + x^2)} ;
Coeffmatlast5[[i]] =
CoefficientList[Factor[interlacingpolylast5[[i]]] / mu[last5[[i]]], x];
Out[®]= (-15 + x) (-13 + x)^6 (-11 + x)^9 (-9 + x)^2 (5 + x)^42

In[®]:= Coeffmatlast5[[i]] // MatrixForm
Out[®]/MatrixForm=

$$\begin{pmatrix} 11\,026 & -4529 & 673 & -43 & 1 \\ 10\,966 & -4525 & 673 & -43 & 1 \\ 10\,998 & -4525 & 673 & -43 & 1 \\ 10\,818 & -4513 & 673 & -43 & 1 \\ 10\,758 & -4509 & 673 & -43 & 1 \\ 10\,790 & -4509 & 673 & -43 & 1 \\ 10\,582 & -4493 & 673 & -43 & 1 \end{pmatrix}$$


In[®]:= gveclast5[[i]] = CoefficientList[D[last5[[i]], x] / mu[last5[[i]]] // Factor, x]
Out[®]= {659 400, -271 596, 40 380, -2580, 60}

In[®]:= Solve[n[1] ≥ 0 && n[2] ≥ 0 && n[3] ≥ 0 && n[4] ≥ 0 && n[5] ≥ 0 && n[6] ≥ 0 && n[7] ≥ 0 &&
          Array[n, 7].Coeffmatlast5[[i]] == gveclast5[[i]], Array[n, 7], Reals]
Out[®]= {{n[1] → 24, n[2] → 36, n[3] → 0, n[4] → 0, n[5] → 0, n[6] → 0, n[7] → 0}}
```

In[®]:= **Array[c, 5].Transpose[Coeffmatlast5[[i]]]**

```

Out[®]= {11 026 c[1] - 4529 c[2] + 673 c[3] - 43 c[4] + c[5],
  10 966 c[1] - 4525 c[2] + 673 c[3] - 43 c[4] + c[5],
  10 998 c[1] - 4525 c[2] + 673 c[3] - 43 c[4] + c[5],
  10 818 c[1] - 4513 c[2] + 673 c[3] - 43 c[4] + c[5],
  10 758 c[1] - 4509 c[2] + 673 c[3] - 43 c[4] + c[5],
  10 790 c[1] - 4509 c[2] + 673 c[3] - 43 c[4] + c[5],
  10 582 c[1] - 4493 c[2] + 673 c[3] - 43 c[4] + c[5]}
```

In[®]:= **Array[c, 5].gveclast5[[i]]**

```

Out[®]= 659 400 c[1] - 271 596 c[2] + 40 380 c[3] - 2580 c[4] + 60 c[5]
```

```

In[®]:= i
Flatten[Array[c, 5] /.
  FindInstance[659400 c[1] - 271596 c[2] + 40380 c[3] - 2580 c[4] + 60 c[5] < 0 &&
    11026 c[1] - 4529 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10966 c[1] - 4525 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10998 c[1] - 4525 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10818 c[1] - 4513 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10758 c[1] - 4509 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10790 c[1] - 4509 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10582 c[1] - 4493 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0, Array[c, 5], Integers]]

Out[®]= 4
Out[®]= {c[1], c[2], c[3], c[4], c[5]}

In[®]:= i
Flatten[Array[c, 5] /.
  FindInstance[659400 c[1] - 271596 c[2] + 40380 c[3] - 2580 c[4] + 60 c[5] < 0 &&
    11026 c[1] - 4529 c[2] + 673 c[3] - 43 c[4] + c[5] < 0 &&
    10966 c[1] - 4525 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10998 c[1] - 4525 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10818 c[1] - 4513 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10758 c[1] - 4509 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10790 c[1] - 4509 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0 &&
    10582 c[1] - 4493 c[2] + 673 c[3] - 43 c[4] + c[5] ≥ 0, Array[c, 5], Integers]]

Out[®]= 4
Out[®]= {0, 10146, 0, 0, 45911387}

In[®]:= GCD[0, 10146, 0, 0, 45911387]
Out[®]= 1

In[®]:= {0, 10146, 0, 0, 45911387}.Transpose[Coeffmatlast5[[4]]]
{0, 10146, 0, 0, 45911387}.gveclast5[[4]]
Out[®]= {-39847, 737, 737, 122489, 163073, 163073, 325409}
Out[®]= -929796

In[®]:= Reverse[{0, 10146, 0, 0, 45911387}]
Out[®]= {45911387, 0, 0, 10146, 0}

In[®]:= feasibleinterlacingpolylist[
  (-13 + x)^5 (-11 + x)^8 (-9 + x) (5 + x)^41 (11026 - 4529 x + 673 x^2 - 43 x^3 + x^4)] // Length
Out[®]= 208

In[®]:= listinterlacingf1 =
  {(-9 + x) (889149 - 575206 x + 151487 x^2 - 20796 x^3 + 1571 x^4 - 62 x^5 + x^6),
   (-13 + x) (-9 + x) (73 - 18 x + x^2) (-937 + 303 x - 31 x^2 + x^3),
   (-13 + x) (-9 + x) (-7 + x) (9767 - 4174 x + 640 x^2 - 42 x^3 + x^4),
   (-13 + x) (-11 + x) (-9 + x) (6123 - 2970 x + 516 x^2 - 38 x^3 + x^4),

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$$\begin{aligned}
& (-9 + x) (875109 - 571630x + 151191x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-9 + x) (-67321 + 38793x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-9 + x) (874693 - 571598x + 151191x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-9 + x) (-67289 + 38793x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-11 + x) (-9 + x) (-79839 + 44749x - 9678x^2 + 1010x^3 - 51x^4 + x^5), \\
& (-9 + x) (877813 - 572046x + 151207x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (-7 + x) (-877 + 299x - 31x^2 + x^3), \\
& (-9 + x) (877397 - 572014x + 151207x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-9 + x) (-67497 + 38809x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-9 + x) (876981 - 571982x + 151207x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-9 + x) (-67465 + 38809x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-9 + x) (95 - 20x + x^2) (9227 - 4078x + 636x^2 - 42x^3 + x^4), \\
& (-13 + x) (-9 + x) (-67433 + 38809x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-9 + x) (880101 - 572430x + 151223x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-9 + x) (879685 - 572398x + 151223x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-9 + x) (59 - 16x + x^2) (-1147 + 347x - 33x^2 + x^3), \\
& (-9 + x) (879269 - 572366x + 151223x^2 - 20788x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-9 + x) (-7 + x) (9663 - 4166x + 640x^2 - 42x^3 + x^4), \\
& (-9 + x) (69 - 18x + x^2) (12737 - 4972x + 710x^2 - 44x^3 + x^4), \\
& (-13 + x) (-9 + x) (-67609 + 38825x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-13 + x) (-9 + x) (-67577 + 38825x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-9 + x) (-1087 + 343x - 33x^2 + x^3) (-811 + 271x - 29x^2 + x^3), \\
& (-13 + x) (-9 + x) (-67785 + 38841x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-13 + x) (-9 + x) (-7 + x) (9679 - 4166x + 640x^2 - 42x^3 + x^4), \\
& (-13 + x) (-9 + x) (-67721 + 38841x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-13 + x) (-9 + x) (-67897 + 38857x - 8646x^2 + 934x^3 - 49x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x)^2 (-667 + 255x - 29x^2 + x^3), \\
& (-11 + x) (-9 + x) (-78279 + 44525x - 9670x^2 + 1010x^3 - 51x^4 + x^5), \\
& (-9 + x) (860653 - 568022x + 150895x^2 - 20780x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (6019 - 2962x + 516x^2 - 38x^3 + x^4), \\
& (-11 + x) (-9 + x) (-78519 + 44541x - 9670x^2 + 1010x^3 - 51x^4 + x^5), \\
& (-9 + x) (863293 - 568438x + 150911x^2 - 20780x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-11 + x) (-9 + x) (-78487 + 44541x - 9670x^2 + 1010x^3 - 51x^4 + x^5), \\
& (-9 + x) (862877 - 568406x + 150911x^2 - 20780x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-9 + x) (862941 - 568406x + 150911x^2 - 20780x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (-5 + x) (-1207 + 351x - 33x^2 + x^3), \\
& (-9 + x) (862525 - 568374x + 150911x^2 - 20780x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-13 + x) (-9 + x) (-66353 + 38617x - 8638x^2 + 934x^3 - 49x^4 + x^5), \\
& (-11 + x)^2 (-9 + x) (7157 - 3400x + 570x^2 - 40x^3 + x^4), \\
& (-9 + x) (865581 - 568822x + 150927x^2 - 20780x^3 + 1571x^4 - 62x^5 + x^6), \\
& (-11 + x) (-9 + x) (-78695 + 44557x - 9670x^2 + 1010x^3 - 51x^4 + x^5), \\
& (-9 + x) (865229 - 568790x + 150927x^2 - 20780x^3 + 1571x^4 - 62x^5 + x^6),
\end{aligned}$$

$$\begin{aligned}
& (-13 + x) (-11 + x) (-9 + x) (6051 - 2962 x + 516 x^2 - 38 x^3 + x^4), \\
& (-9 + x) (864813 - 568758 x + 150927 x^2 - 20780 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-9 + x) (-66529 + 38633 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-9 + x) (864397 - 568726 x + 150927 x^2 - 20780 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-9 + x) (-66497 + 38633 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-11 + x) (-9 + x) (-78935 + 44573 x - 9670 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-11 + x)^2 (-9 + x) (7173 - 3400 x + 570 x^2 - 40 x^3 + x^4), \\
& (-9 + x) (867517 - 569174 x + 150943 x^2 - 20780 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (6067 - 2962 x + 516 x^2 - 38 x^3 + x^4), \\
& (-9 + x) (867101 - 569142 x + 150943 x^2 - 20780 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-9 + x) (-66705 + 38649 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-9 + x) (95 - 20 x + x^2) (9123 - 4070 x + 636 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-66673 + 38649 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-66641 + 38649 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-11 + x) (-9 + x) (-79111 + 44589 x - 9670 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-9 + x) (869805 - 569558 x + 150959 x^2 - 20780 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x)^2 (-9 + x) (-7 + x) (79 - 20 x + x^2), \\
& (-9 + x) (869389 - 569526 x + 150959 x^2 - 20780 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-9 + x) (-66881 + 38665 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-66849 + 38665 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (109 - 22 x + x^2) (-613 + 231 x - 27 x^2 + x^3), \\
& (-13 + x) (-9 + x) (95 - 20 x + x^2) (-703 + 259 x - 29 x^2 + x^3), \\
& (-9 + x) (872093 - 569942 x + 150975 x^2 - 20780 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (6099 - 2962 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-67057 + 38681 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-7 + x) (9575 - 4158 x + 640 x^2 - 42 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-66993 + 38681 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-66961 + 38681 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (59 - 16 x + x^2) (-1139 + 347 x - 33 x^2 + x^3), \\
& (-13 + x) (-9 + x) (-67169 + 38697 x - 8638 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-7 + x) (139 - 24 x + x^2) (69 - 18 x + x^2), \\
& (-11 + x) (-9 + x)^2 (8551 - 3974 x + 632 x^2 - 42 x^3 + x^4), \\
& (-11 + x) (-9 + x) (-77167 + 44333 x - 9662 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-9 + x)^2 (-94269 + 52281 x - 10926 x^2 + 1094 x^3 - 53 x^4 + x^5), \\
& (-11 + x) (-9 + x) (-77135 + 44333 x - 9662 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x)^2 (-659 + 255 x - 29 x^2 + x^3), \\
& (-11 + x) (-9 + x) (-77375 + 44349 x - 9662 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-9 + x) (850709 - 565182 x + 150631 x^2 - 20772 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-11 + x) (-9 + x) (-77343 + 44349 x - 9662 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-9 + x) (850357 - 565150 x + 150631 x^2 - 20772 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (5947 - 2954 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x)^2 (7265 - 3464 x + 574 x^2 - 40 x^3 + x^4),
\end{aligned}$$

$$\begin{aligned}
& (-11+x)^2 (-9+x) \left(7053 - 3392x + 570x^2 - 40x^3 + x^4 \right), \\
& (-11+x) (-9+x) \left(-77551 + 44365x - 9662x^2 + 1010x^3 - 51x^4 + x^5 \right), \\
& (-9+x) \left(852645 - 565534x + 150647x^2 - 20772x^3 + 1571x^4 - 62x^5 + x^6 \right), \\
& (-13+x) (-11+x) (-9+x) \left(5963 - 2954x + 516x^2 - 38x^3 + x^4 \right), \\
& (-9+x) \left(-1477 + 399x - 35x^2 + x^3 \right) \left(-577 + 227x - 27x^2 + x^3 \right), \\
& (-13+x) (-9+x) \left(-65561 + 38457x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-11+x)^2 (-9+x) \left(7069 - 3392x + 570x^2 - 40x^3 + x^4 \right), \\
& (-9+x) \left(854933 - 565918x + 150663x^2 - 20772x^3 + 1571x^4 - 62x^5 + x^6 \right), \\
& (-13+x) (-11+x) (-9+x) \left(5979 - 2954x + 516x^2 - 38x^3 + x^4 \right), \\
& (-9+x) \left(854517 - 565886x + 150663x^2 - 20772x^3 + 1571x^4 - 62x^5 + x^6 \right), \\
& (-13+x) (-9+x) \left(-65737 + 38473x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) \left(-65705 + 38473x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-11+x) (-9+x) \left(-77967 + 44397x - 9662x^2 + 1010x^3 - 51x^4 + x^5 \right), \\
& (-9+x) \left(857221 - 566302x + 150679x^2 - 20772x^3 + 1571x^4 - 62x^5 + x^6 \right), \\
& (-13+x) (-11+x)^2 (-9+x) (-5+x) \left(109 - 22x + x^2 \right), \\
& (-9+x) \left(95 - 20x + x^2 \right) \left(9019 - 4062x + 636x^2 - 42x^3 + x^4 \right), \\
& (-13+x) (-9+x) \left(-65913 + 38489x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) \left(-65881 + 38489x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) \left(-65849 + 38489x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-11+x) (-9+x) \left(-78175 + 44413x - 9662x^2 + 1010x^3 - 51x^4 + x^5 \right), \\
& (-9+x) \left(859509 - 566686x + 150695x^2 - 20772x^3 + 1571x^4 - 62x^5 + x^6 \right), \\
& (-13+x) (-11+x) (-9+x) \left(6011 - 2954x + 516x^2 - 38x^3 + x^4 \right), \\
& (-13+x) (-9+x) \left(-66089 + 38505x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) \left(-66057 + 38505x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) (-5+x) \left(139 - 24x + x^2 \right) \left(95 - 20x + x^2 \right), \\
& (-13+x) (-9+x) \left(-65993 + 38505x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-11+x) (-9+x) \left(-78383 + 44429x - 9662x^2 + 1010x^3 - 51x^4 + x^5 \right), \\
& (-13+x) (-11+x) (-9+x) (-7+x) \left(-861 + 299x - 31x^2 + x^3 \right), \\
& (-13+x) (-9+x) \left(-66265 + 38521x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) \left(-66233 + 38521x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) \left(-66201 + 38521x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-11+x) (-9+x) \left(6043 - 2954x + 516x^2 - 38x^3 + x^4 \right), \\
& (-13+x) (-9+x) \left(-66441 + 38537x - 8630x^2 + 934x^3 - 49x^4 + x^5 \right), \\
& (-13+x) (-9+x) (-7+x) \left(9487 - 4150x + 640x^2 - 42x^3 + x^4 \right), \\
& (-13+x) (-9+x) \left(69 - 18x + x^2 \right) \left(-965 + 307x - 31x^2 + x^3 \right), \\
& (-11+x) (-9+x)^2 \left(8447 - 3966x + 632x^2 - 42x^3 + x^4 \right), \\
& (-11+x) (-9+x) \left(-76231 + 44157x - 9654x^2 + 1010x^3 - 51x^4 + x^5 \right), \\
& (-11+x) (-9+x) \left(-76199 + 44157x - 9654x^2 + 1010x^3 - 51x^4 + x^5 \right), \\
& (-13+x) (-11+x) (-9+x)^2 \left(-651 + 255x - 29x^2 + x^3 \right), \\
& (-11+x)^2 (-9+x) \left(6949 - 3384x + 570x^2 - 40x^3 + x^4 \right), \\
& (-11+x) (-9+x) \left(-76407 + 44173x - 9654x^2 + 1010x^3 - 51x^4 + x^5 \right), \\
& (-9+x) \left(840061 - 562278x + 150367x^2 - 20764x^3 + 1571x^4 - 62x^5 + x^6 \right),
\end{aligned}$$

$$\begin{aligned}
& (-13 + x) (-11 + x) (-9 + x) (5875 - 2946 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x)^2 (7177 - 3456 x + 574 x^2 - 40 x^3 + x^4), \\
& (-11 + x)^2 (-9 + x) (6965 - 3384 x + 570 x^2 - 40 x^3 + x^4), \\
& (-9 + x) (842\,349 - 562\,662 x + 150\,383 x^2 - 20\,764 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (5891 - 2946 x + 516 x^2 - 38 x^3 + x^4), \\
& (-9 + x) (841\,933 - 562\,630 x + 150\,383 x^2 - 20\,764 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-9 + x) (-64\,769 + 38\,297 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x)^2 (7193 - 3456 x + 574 x^2 - 40 x^3 + x^4), \\
& (-11 + x) (-9 + x) (-76\,823 + 44\,205 x - 9654 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-9 + x) (844\,637 - 563\,046 x + 150\,399 x^2 - 20\,764 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x)^2 (-9 + x) (-537 + 219 x - 27 x^2 + x^3), \\
& (-13 + x) (-9 + x) (-64\,945 + 38\,313 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (139 - 24 x + x^2) (-467 + 195 x - 25 x^2 + x^3), \\
& (-11 + x) (-9 + x) (-77\,031 + 44\,221 x - 9654 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x) (5923 - 2946 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-65\,121 + 38\,329 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-65\,089 + 38\,329 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-65\,057 + 38\,329 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-11 + x) (-9 + x) (-77\,239 + 44\,237 x - 9654 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x) (5939 - 2946 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-65\,297 + 38\,345 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (95 - 20 x + x^2) (-687 + 259 x - 29 x^2 + x^3), \\
& (-13 + x) (-9 + x) (-65\,233 + 38\,345 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-11 + x) (697\,087 - 475\,724 x + 131\,139 x^2 - 18\,744 x^3 + 1469 x^4 - 60 x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (-5 + x) (-1191 + 351 x - 33 x^2 + x^3), \\
& (-13 + x) (-9 + x) (-65\,473 + 38\,361 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-65\,441 + 38\,361 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-11 + x) (698\,959 - 476\,076 x + 131\,155 x^2 - 18\,744 x^3 + 1469 x^4 - 60 x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (-7 + x) (-853 + 299 x - 31 x^2 + x^3), \\
& (-13 + x) (-9 + x) (-65\,649 + 38\,377 x - 8622 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x) (5987 - 2946 x + 516 x^2 - 38 x^3 + x^4), \\
& (-11 + x) (-9 + x)^2 (8343 - 3958 x + 632 x^2 - 42 x^3 + x^4), \\
& (-11 + x) (-9 + x) (-75\,263 + 43\,981 x - 9646 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x)^2 (-643 + 255 x - 29 x^2 + x^3), \\
& (-11 + x)^2 (-9 + x) (6861 - 3376 x + 570 x^2 - 40 x^3 + x^4), \\
& (-9 + x) (829\,765 - 559\,406 x + 150\,103 x^2 - 20\,756 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x) (-9 + x) (5803 - 2938 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x)^2 (139 - 24 x + x^2) (51 - 16 x + x^2), \\
& (-11 + x) (-9 + x) (-75\,679 + 44\,013 x - 9646 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-9 + x) (832\,053 - 559\,790 x + 150\,119 x^2 - 20\,756 x^3 + 1571 x^4 - 62 x^5 + x^6), \\
& (-13 + x) (-11 + x)^2 (-9 + x) (-529 + 219 x - 27 x^2 + x^3), \\
& (-13 + x) (-9 + x) (-63\,977 + 38\,137 x - 8614 x^2 + 934 x^3 - 49 x^4 + x^5),
\end{aligned}$$

$$\begin{aligned}
& (-13 + x) (-9 + x)^2 (7105 - 3448 x + 574 x^2 - 40 x^3 + x^4), \\
& (-11 + x) (-9 + x) (-75887 + 44029 x - 9646 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x) (5835 - 2938 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-64153 + 38153 x - 8614 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (-64121 + 38153 x - 8614 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x)^2 (7121 - 3448 x + 574 x^2 - 40 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-9 + x) (5851 - 2938 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-64329 + 38169 x - 8614 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x) (113 - 22 x + x^2) (-569 + 227 x - 27 x^2 + x^3), \\
& (-13 + x) (-11 + x) (-9 + x) (5867 - 2938 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (95 - 20 x + x^2) (-679 + 259 x - 29 x^2 + x^3), \\
& (-13 + x) (-11 + x) (-9 + x) (5883 - 2938 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-9 + x) (5899 - 2938 x + 516 x^2 - 38 x^3 + x^4), \\
& (-11 + x)^2 (-9 + x) (6757 - 3368 x + 570 x^2 - 40 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-9 + x)^2 (-635 + 255 x - 29 x^2 + x^3), \\
& (-11 + x) (-9 + x) (-74535 + 43821 x - 9638 x^2 + 1010 x^3 - 51 x^4 + x^5), \\
& (-13 + x) (-11 + x)^2 (-9 + x) (-521 + 219 x - 27 x^2 + x^3), \\
& (-13 + x) (-9 + x)^2 (7001 - 3440 x + 574 x^2 - 40 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-9 + x) (5747 - 2930 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-63185 + 37977 x - 8606 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-9 + x)^2 (7017 - 3440 x + 574 x^2 - 40 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-9 + x) (113 - 22 x + x^2) (51 - 16 x + x^2), \\
& (-13 + x) (-9 + x) (-63361 + 37993 x - 8606 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x) (5779 - 2930 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-63537 + 38009 x - 8606 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x) (95 - 20 x + x^2) (61 - 18 x + x^2), \\
& (-13 + x) (-11 + x)^2 (-9 + x)^2 (57 - 18 x + x^2), \\
& (-13 + x) (-11 + x) (-9 + x) (5659 - 2922 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x)^2 (6913 - 3432 x + 574 x^2 - 40 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-9 + x) (5675 - 2922 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-9 + x) (-62393 + 37817 x - 8598 x^2 + 934 x^3 - 49 x^4 + x^5), \\
& (-13 + x) (-11 + x) (-9 + x) (5691 - 2922 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x) (-11 + x) (-9 + x)^2 (-619 + 255 x - 29 x^2 + x^3), \\
& (-13 + x) (-11 + x) (-9 + x) (5587 - 2914 x + 516 x^2 - 38 x^3 + x^4), \\
& (-13 + x)^2 (-11 + x) (-9 + x) (-431 + 191 x - 25 x^2 + x^3), \\
& (-13 + x)^2 (-11 + x) (-9 + x)^2 (47 - 16 x + x^2) \};
\end{aligned}$$

`Length[listinterlacingf1]`

`Out[6] = 208`

```
In[7]:= listinterlacingf1coeffmat = CoefficientList[listinterlacingf1, x];
listinterlacingf1coeffmat // Dimensions
```

`Out[7] = {208, 8}`

```

In[]:= CoefficientList[
D[(-13 + x)^5 (-11 + x)^8 (-9 + x) (5 + x)^41 (11 026 - 4529 x + 673 x^2 - 43 x^3 + x^4), x] /
mu[(-13 + x)^5 (-11 + x)^8 (-9 + x) (5 + x)^41
(11 026 - 4529 x + 673 x^2 - 43 x^3 + x^4)] // Factor, x]

Out[]= {-465 890 207, 355 483 889, -114 032 079, 19 958 761, -2 060 661, 125 611, -4189, 59}

In[]:= Array[c, 8].Transpose[listinterlacingf1coeffmat]

Out[=] {-8 002 341 c[1] + 6 066 003 c[2] - 1 938 589 c[3] + 338 651 c[4] -
34 935 c[5] + 2129 c[6] - 71 c[7] + c[8], -8 002 917 c[1] + 6 066 067 c[2] -
1 938 589 c[3] + 338 651 c[4] - 34 935 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 999 173 c[1] + 6 065 363 c[2] - 1 938 557 c[3] + 338 651 c[4] - 34 935 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 880 301 c[1] + 6 020 547 c[2] -
1 932 381 c[3] + 338 283 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 875 981 c[1] + 6 019 779 c[2] - 1 932 349 c[3] + 338 283 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 876 557 c[1] + 6 019 843 c[2] -
1 932 349 c[3] + 338 283 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 872 237 c[1] + 6 019 075 c[2] - 1 932 317 c[3] + 338 283 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 872 813 c[1] + 6 019 139 c[2] -
1 932 317 c[3] + 338 283 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 904 061 c[1] + 6 026 931 c[2] - 1 932 941 c[3] + 338 299 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 900 317 c[1] + 6 026 227 c[2] -
1 932 909 c[3] + 338 299 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 900 893 c[1] + 6 026 291 c[2] - 1 932 909 c[3] + 338 299 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 896 573 c[1] + 6 025 523 c[2] -
1 932 877 c[3] + 338 299 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 897 149 c[1] + 6 025 587 c[2] - 1 932 877 c[3] + 338 299 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 892 829 c[1] + 6 024 819 c[2] -
1 932 845 c[3] + 338 299 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 893 405 c[1] + 6 024 883 c[2] - 1 932 845 c[3] + 338 299 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 889 085 c[1] + 6 024 115 c[2] -
1 932 813 c[3] + 338 299 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 889 661 c[1] + 6 024 179 c[2] - 1 932 813 c[3] + 338 299 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 920 909 c[1] + 6 031 971 c[2] -
1 933 437 c[3] + 338 315 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 917 165 c[1] + 6 031 267 c[2] - 1 933 405 c[3] + 338 315 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 917 741 c[1] + 6 031 331 c[2] -
1 933 405 c[3] + 338 315 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 913 421 c[1] + 6 030 563 c[2] - 1 933 373 c[3] + 338 315 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 913 997 c[1] + 6 030 627 c[2] -
1 933 373 c[3] + 338 315 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 909 677 c[1] + 6 029 859 c[2] - 1 933 341 c[3] + 338 315 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 910 253 c[1] + 6 029 923 c[2] -
1 933 341 c[3] + 338 315 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],
-7 906 509 c[1] + 6 029 219 c[2] - 1 933 309 c[3] + 338 315 c[4] - 34 927 c[5] +
2129 c[6] - 71 c[7] + c[8], -7 934 013 c[1] + 6 036 307 c[2] -
1 933 901 c[3] + 338 331 c[4] - 34 927 c[5] + 2129 c[6] - 71 c[7] + c[8],

```

$$\begin{aligned}
& -7930845 c[1] + 6035667 c[2] - 1933869 c[3] + 338331 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7927101 c[1] + 6034963 c[2] - \\
& 1933837 c[3] + 338331 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7923357 c[1] + 6034259 c[2] - 1933805 c[3] + 338331 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7943949 c[1] + 6040003 c[2] - \\
& 1934333 c[3] + 338347 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7725861 c[1] + 5967171 c[2] - 1925549 c[3] + 337899 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7749621 c[1] + 5973555 c[2] - \\
& 1926109 c[3] + 337915 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7745877 c[1] + 5972851 c[2] - 1926077 c[3] + 337915 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7746453 c[1] + 5972915 c[2] - \\
& 1926077 c[3] + 337915 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7773381 c[1] + 5979939 c[2] - 1926669 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7769637 c[1] + 5979235 c[2] - \\
& 1926637 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7770213 c[1] + 5979299 c[2] - 1926637 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7765893 c[1] + 5978531 c[2] - \\
& 1926605 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7766469 c[1] + 5978595 c[2] - 1926605 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7767045 c[1] + 5978659 c[2] - \\
& 1926605 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7762725 c[1] + 5977891 c[2] - 1926573 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7763301 c[1] + 5977955 c[2] - \\
& 1926573 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7793973 c[1] + 5985683 c[2] - 1927197 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7790229 c[1] + 5984979 c[2] - \\
& 1927165 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7790805 c[1] + 5985043 c[2] - 1927165 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7787061 c[1] + 5984339 c[2] - \\
& 1927133 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7787637 c[1] + 5984403 c[2] - 1927133 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7783317 c[1] + 5983635 c[2] - \\
& 1927101 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7783893 c[1] + 5983699 c[2] - 1927101 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7779573 c[1] + 5982931 c[2] - \\
& 1927069 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7780149 c[1] + 5982995 c[2] - 1927069 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7814565 c[1] + 5991427 c[2] - \\
& 1927725 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7811397 c[1] + 5990787 c[2] - 1927693 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7807653 c[1] + 5990083 c[2] - \\
& 1927661 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7808229 c[1] + 5990147 c[2] - 1927661 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7803909 c[1] + 5989379 c[2] - \\
& 1927629 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7804485 c[1] + 5989443 c[2] - 1927629 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7800165 c[1] + 5988675 c[2] -
\end{aligned}$$

$$\begin{aligned}
& 1927597 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7800741 c[1] + 5988739 c[2] - 1927597 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7796997 c[1] + 5988035 c[2] - \\
& 1927565 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7831989 c[1] + 5996531 c[2] - 1928221 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7828245 c[1] + 5995827 c[2] - \\
& 1928189 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7828821 c[1] + 5995891 c[2] - 1928189 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7824501 c[1] + 5995123 c[2] - \\
& 1928157 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7825077 c[1] + 5995187 c[2] - 1928157 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7821333 c[1] + 5994483 c[2] - \\
& 1928125 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7817589 c[1] + 5993779 c[2] - 1928093 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7813845 c[1] + 5993075 c[2] - \\
& 1928061 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7848837 c[1] + 6001571 c[2] - 1928717 c[3] + 337995 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7849413 c[1] + 6001635 c[2] - \\
& 1928717 c[3] + 337995 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7845669 c[1] + 6000931 c[2] - 1928685 c[3] + 337995 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7841925 c[1] + 6000227 c[2] - \\
& 1928653 c[3] + 337995 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7838181 c[1] + 5999523 c[2] - 1928621 c[3] + 337995 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7834437 c[1] + 5998819 c[2] - \\
& 1928589 c[3] + 337995 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7862517 c[1] + 6005971 c[2] - 1929181 c[3] + 338011 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7858773 c[1] + 6005267 c[2] - \\
& 1929149 c[3] + 338011 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7855029 c[1] + 6004563 c[2] - 1929117 c[3] + 338011 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7618941 c[1] + 5926563 c[2] - \\
& 1919837 c[3] + 337547 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7639533 c[1] + 5932307 c[2] - 1920365 c[3] + 337563 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7635789 c[1] + 5931603 c[2] - \\
& 1920333 c[3] + 337563 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7636365 c[1] + 5931667 c[2] - 1920333 c[3] + 337563 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7633197 c[1] + 5931027 c[2] - \\
& 1920301 c[3] + 337563 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7660125 c[1] + 5938051 c[2] - 1920893 c[3] + 337579 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7656381 c[1] + 5937347 c[2] - \\
& 1920861 c[3] + 337579 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7656957 c[1] + 5937411 c[2] - 1920861 c[3] + 337579 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7653213 c[1] + 5936707 c[2] - \\
& 1920829 c[3] + 337579 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7653789 c[1] + 5936771 c[2] - 1920829 c[3] + 337579 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7650045 c[1] + 5936067 c[2] - \\
& 1920797 c[3] + 337579 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7680717 c[1] + 5943795 c[2] - 1921421 c[3] + 337595 c[4] - 34911 c[5] +
\end{aligned}$$

$$\begin{aligned}
& 2129 c[6] - 71 c[7] + c[8], -7677549 c[1] + 5943155 c[2] - \\
& -1921389 c[3] + 337595 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7673805 c[1] + 5942451 c[2] - 1921357 c[3] + 337595 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7674381 c[1] + 5942515 c[2] - \\
& 1921357 c[3] + 337595 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7670061 c[1] + 5941747 c[2] - 1921325 c[3] + 337595 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7670637 c[1] + 5941811 c[2] - \\
& 1921325 c[3] + 337595 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7698141 c[1] + 5948899 c[2] - 1921917 c[3] + 337611 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7694397 c[1] + 5948195 c[2] - \\
& 1921885 c[3] + 337611 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7694973 c[1] + 5948259 c[2] - 1921885 c[3] + 337611 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7690653 c[1] + 5947491 c[2] - \\
& 1921853 c[3] + 337611 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7691229 c[1] + 5947555 c[2] - 1921853 c[3] + 337611 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7687485 c[1] + 5946851 c[2] - \\
& 1921821 c[3] + 337611 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7718733 c[1] + 5954643 c[2] - 1922445 c[3] + 337627 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7714989 c[1] + 5953939 c[2] - \\
& 1922413 c[3] + 337627 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7715565 c[1] + 5954003 c[2] - 1922413 c[3] + 337627 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7711245 c[1] + 5953235 c[2] - \\
& 1922381 c[3] + 337627 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7711821 c[1] + 5953299 c[2] - 1922381 c[3] + 337627 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7708077 c[1] + 5952595 c[2] - \\
& 1922349 c[3] + 337627 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7704333 c[1] + 5951891 c[2] - 1922317 c[3] + 337627 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7739325 c[1] + 5960387 c[2] - \\
& 1922973 c[3] + 337643 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7735581 c[1] + 5959683 c[2] - 1922941 c[3] + 337643 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7736157 c[1] + 5959747 c[2] - \\
& 1922941 c[3] + 337643 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7732413 c[1] + 5959043 c[2] - 1922909 c[3] + 337643 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7728669 c[1] + 5958339 c[2] - \\
& 1922877 c[3] + 337643 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7724925 c[1] + 5957635 c[2] - 1922845 c[3] + 337643 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7721181 c[1] + 5956931 c[2] - \\
& 1922813 c[3] + 337643 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7759917 c[1] + 5966131 c[2] - 1923501 c[3] + 337659 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7756749 c[1] + 5965491 c[2] - \\
& 1923469 c[3] + 337659 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7753005 c[1] + 5964787 c[2] - 1923437 c[3] + 337659 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7749261 c[1] + 5964083 c[2] - \\
& 1923405 c[3] + 337659 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7745517 c[1] + 5963379 c[2] - 1923373 c[3] + 337659 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7777341 c[1] + 5971235 c[2] - \\
& 1923997 c[3] + 337675 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8],
\end{aligned}$$

$$\begin{aligned}
& -7773597 c[1] + 5970531 c[2] - 1923965 c[3] + 337675 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7769853 c[1] + 5969827 c[2] - \\
& 1923933 c[3] + 337675 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7790445 c[1] + 5975571 c[2] - 1924461 c[3] + 337691 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7526277 c[1] + 5890419 c[2] - \\
& 1914589 c[3] + 337211 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7546869 c[1] + 5896163 c[2] - 1915117 c[3] + 337227 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7543701 c[1] + 5895523 c[2] - \\
& 1915085 c[3] + 337227 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7540533 c[1] + 5894883 c[2] - 1915053 c[3] + 337227 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7567461 c[1] + 5901907 c[2] - \\
& 1915645 c[3] + 337243 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7564293 c[1] + 5901267 c[2] - 1915613 c[3] + 337243 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7560549 c[1] + 5900563 c[2] - \\
& 1915581 c[3] + 337243 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7561125 c[1] + 5900627 c[2] - 1915581 c[3] + 337243 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7557381 c[1] + 5899923 c[2] - \\
& 1915549 c[3] + 337243 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7584885 c[1] + 5907011 c[2] - 1916141 c[3] + 337259 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7581141 c[1] + 5906307 c[2] - \\
& 1916109 c[3] + 337259 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7581717 c[1] + 5906371 c[2] - 1916109 c[3] + 337259 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7577397 c[1] + 5905603 c[2] - \\
& 1916077 c[3] + 337259 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7577973 c[1] + 5905667 c[2] - 1916077 c[3] + 337259 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7574229 c[1] + 5904963 c[2] - \\
& 1916045 c[3] + 337259 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7605477 c[1] + 5912755 c[2] - 1916669 c[3] + 337275 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7601733 c[1] + 5912051 c[2] - \\
& 1916637 c[3] + 337275 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7602309 c[1] + 5912115 c[2] - 1916637 c[3] + 337275 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7598565 c[1] + 5911411 c[2] - \\
& 1916605 c[3] + 337275 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7594821 c[1] + 5910707 c[2] - 1916573 c[3] + 337275 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7626069 c[1] + 5918499 c[2] - \\
& 1917197 c[3] + 337291 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7622901 c[1] + 5917859 c[2] - 1917165 c[3] + 337291 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7619157 c[1] + 5917155 c[2] - \\
& 1917133 c[3] + 337291 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7615413 c[1] + 5916451 c[2] - 1917101 c[3] + 337291 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7611669 c[1] + 5915747 c[2] - \\
& 1917069 c[3] + 337291 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7646661 c[1] + 5924243 c[2] - 1917725 c[3] + 337307 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7643493 c[1] + 5923603 c[2] - \\
& 1917693 c[3] + 337307 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7639749 c[1] + 5922899 c[2] - 1917661 c[3] + 337307 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7636005 c[1] + 5922195 c[2] -
\end{aligned}$$

$$\begin{aligned}
& 1917629 c[3] + 337307 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7632261 c[1] + 5921491 c[2] - 1917597 c[3] + 337307 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7667957 c[1] + 5930051 c[2] - \\
& 1918253 c[3] + 337323 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7664085 c[1] + 5929347 c[2] - 1918221 c[3] + 337323 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7660341 c[1] + 5928643 c[2] - \\
& 1918189 c[3] + 337323 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7656597 c[1] + 5927939 c[2] - 1918157 c[3] + 337323 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7688549 c[1] + 5935795 c[2] - \\
& 1918781 c[3] + 337339 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7684677 c[1] + 5935091 c[2] - 1918749 c[3] + 337339 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7680933 c[1] + 5934387 c[2] - \\
& 1918717 c[3] + 337339 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7705269 c[1] + 5940835 c[2] - 1919277 c[3] + 337355 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7433613 c[1] + 5854275 c[2] - \\
& 1909341 c[3] + 336875 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7451037 c[1] + 5859379 c[2] - 1909837 c[3] + 336891 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7447869 c[1] + 5858739 c[2] - \\
& 1909805 c[3] + 336891 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7471629 c[1] + 5865123 c[2] - 1910365 c[3] + 336907 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7467885 c[1] + 5864419 c[2] - \\
& 1910333 c[3] + 336907 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7468461 c[1] + 5864483 c[2] - 1910333 c[3] + 336907 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7464717 c[1] + 5863779 c[2] - \\
& 1910301 c[3] + 336907 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7492221 c[1] + 5870867 c[2] - 1910893 c[3] + 336923 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7488477 c[1] + 5870163 c[2] - \\
& 1910861 c[3] + 336923 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7489053 c[1] + 5870227 c[2] - 1910861 c[3] + 336923 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7485309 c[1] + 5869523 c[2] - \\
& 1910829 c[3] + 336923 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7481565 c[1] + 5868819 c[2] - 1910797 c[3] + 336923 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7512813 c[1] + 5876611 c[2] - \\
& 1911421 c[3] + 336939 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7509645 c[1] + 5875971 c[2] - 1911389 c[3] + 336939 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7505901 c[1] + 5875267 c[2] - \\
& 1911357 c[3] + 336939 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7502157 c[1] + 5874563 c[2] - 1911325 c[3] + 336939 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7498413 c[1] + 5873859 c[2] - \\
& 1911293 c[3] + 336939 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7530237 c[1] + 5881715 c[2] - 1911917 c[3] + 336955 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7526493 c[1] + 5881011 c[2] - \\
& 1911885 c[3] + 336955 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7522749 c[1] + 5880307 c[2] - 1911853 c[3] + 336955 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7550829 c[1] + 5887459 c[2] - \\
& 1912445 c[3] + 336971 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7547085 c[1] + 5886755 c[2] - 1912413 c[3] + 336971 c[4] - 34895 c[5] +
\end{aligned}$$

$$\begin{aligned}
& 2129 c[6] - 71 c[7] + c[8], -7571421 c[1] + 5893203 c[2] - \\
& 1912973 c[3] + 336987 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7592013 c[1] + 5898947 c[2] - 1913501 c[3] + 337003 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7358373 c[1] + 5823235 c[2] - \\
& 1904589 c[3] + 336555 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7355205 c[1] + 5822595 c[2] - 1904557 c[3] + 336555 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7378965 c[1] + 5828979 c[2] - \\
& 1905117 c[3] + 336571 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7375797 c[1] + 5828339 c[2] - 1905085 c[3] + 336571 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7372053 c[1] + 5827635 c[2] - \\
& 1905053 c[3] + 336571 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7396389 c[1] + 5834083 c[2] - 1905613 c[3] + 336587 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7392645 c[1] + 5833379 c[2] - \\
& 1905581 c[3] + 336587 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7388901 c[1] + 5832675 c[2] - 1905549 c[3] + 336587 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7416981 c[1] + 5839827 c[2] - \\
& 1906141 c[3] + 336603 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7413237 c[1] + 5839123 c[2] - 1906109 c[3] + 336603 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7437573 c[1] + 5845571 c[2] - \\
& 1906669 c[3] + 336619 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7433829 c[1] + 5844867 c[2] - 1906637 c[3] + 336619 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7458165 c[1] + 5851315 c[2] - \\
& 1907197 c[3] + 336635 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7262541 c[1] + 5786451 c[2] - 1899309 c[3] + 336219 c[4] - 34879 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7283133 c[1] + 5792195 c[2] - \\
& 1899837 c[3] + 336235 c[4] - 34879 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7279389 c[1] + 5791491 c[2] - 1899805 c[3] + 336235 c[4] - 34879 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7303725 c[1] + 5797939 c[2] - \\
& 1900365 c[3] + 336251 c[4] - 34879 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7299981 c[1] + 5797235 c[2] - 1900333 c[3] + 336251 c[4] - 34879 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7324317 c[1] + 5803683 c[2] - \\
& 1900893 c[3] + 336267 c[4] - 34879 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7169877 c[1] + 5750307 c[2] - 1894061 c[3] + 335883 c[4] - 34871 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7190469 c[1] + 5756051 c[2] - \\
& 1894589 c[3] + 335899 c[4] - 34871 c[5] + 2129 c[6] - 71 c[7] + c[8], \\
& -7211061 c[1] + 5761795 c[2] - 1895117 c[3] + 335915 c[4] - 34871 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8], -7077213 c[1] + 5714163 c[2] - \\
& 1888813 c[3] + 335547 c[4] - 34863 c[5] + 2129 c[6] - 71 c[7] + c[8]
\end{aligned}$$

```

In[]:= Array[c, 8].
{-465890207, 355483889, -114032079, 19958761, -2060661, 125611, -4189, 59}

Out[]:= -465890207 c[1] + 355483889 c[2] - 114032079 c[3] +
19958761 c[4] - 2060661 c[5] + 125611 c[6] - 4189 c[7] + 59 c[8]

In[]:= FindInstance[
-465890207 c[1] + 355483889 c[2] - 114032079 c[3] + 19958761 c[4] - 2060661 c[5] +
125611 c[6] - 4189 c[7] + 59 c[8] < 0 && -8002341 c[1] + 6066003 c[2] -

```

$$\begin{aligned}
& 1938589 c[3] + 338651 c[4] - 34935 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -8002917 c[1] + 6066067 c[2] - 1938589 c[3] + 338651 c[4] - 34935 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7999173 c[1] + 6065363 c[2] - \\
& 1938557 c[3] + 338651 c[4] - 34935 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7880301 c[1] + 6020547 c[2] - 1932381 c[3] + 338283 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7875981 c[1] + 6019779 c[2] - \\
& 1932349 c[3] + 338283 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7876557 c[1] + 6019843 c[2] - 1932349 c[3] + 338283 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7872237 c[1] + 6019075 c[2] - \\
& 1932317 c[3] + 338283 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7872813 c[1] + 6019139 c[2] - 1932317 c[3] + 338283 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7904061 c[1] + 6026931 c[2] - \\
& 1932941 c[3] + 338299 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7900317 c[1] + 6026227 c[2] - 1932909 c[3] + 338299 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7900893 c[1] + 6026291 c[2] - \\
& 1932909 c[3] + 338299 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7896573 c[1] + 6025523 c[2] - 1932877 c[3] + 338299 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7897149 c[1] + 6025587 c[2] - \\
& 1932877 c[3] + 338299 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7892829 c[1] + 6024819 c[2] - 1932845 c[3] + 338299 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7893405 c[1] + 6024883 c[2] - \\
& 1932845 c[3] + 338299 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7889085 c[1] + 6024115 c[2] - 1932813 c[3] + 338299 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7889661 c[1] + 6024179 c[2] - \\
& 1932813 c[3] + 338299 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7920909 c[1] + 6031971 c[2] - 1933437 c[3] + 338315 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7917165 c[1] + 6031267 c[2] - \\
& 1933405 c[3] + 338315 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7917741 c[1] + 6031331 c[2] - 1933405 c[3] + 338315 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7913421 c[1] + 6030563 c[2] - \\
& 1933373 c[3] + 338315 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7913997 c[1] + 6030627 c[2] - 1933373 c[3] + 338315 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7909677 c[1] + 6029859 c[2] - \\
& 1933341 c[3] + 338315 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7910253 c[1] + 6029923 c[2] - 1933341 c[3] + 338315 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7906509 c[1] + 6029219 c[2] - \\
& 1933309 c[3] + 338315 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7934013 c[1] + 6036307 c[2] - 1933901 c[3] + 338331 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7930845 c[1] + 6035667 c[2] - \\
& 1933869 c[3] + 338331 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7927101 c[1] + 6034963 c[2] - 1933837 c[3] + 338331 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7923357 c[1] + 6034259 c[2] - \\
& 1933805 c[3] + 338331 c[4] - 34927 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7943949 c[1] + 6040003 c[2] - 1934333 c[3] + 338347 c[4] - 34927 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7725861 c[1] + 5967171 c[2] - \\
& 1925549 c[3] + 337899 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7749621 c[1] + 5973555 c[2] - 1926109 c[3] + 337915 c[4] - 34919 c[5] +
\end{aligned}$$

$$\begin{aligned}
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7745877 c[1] + 5972851 c[2] - \\
& 1926077 c[3] + 337915 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7746453 c[1] + 5972915 c[2] - 1926077 c[3] + 337915 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7773381 c[1] + 5979939 c[2] - \\
& 1926669 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7769637 c[1] + 5979235 c[2] - 1926637 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7770213 c[1] + 5979299 c[2] - \\
& 1926637 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7765893 c[1] + 5978531 c[2] - 1926605 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7766469 c[1] + 5978595 c[2] - \\
& 1926605 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7767045 c[1] + 5978659 c[2] - 1926605 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7762725 c[1] + 5977891 c[2] - \\
& 1926573 c[3] + 337931 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7763301 c[1] + 5977955 c[2] - 1926573 c[3] + 337931 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7793973 c[1] + 5985683 c[2] - \\
& 1927197 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7790229 c[1] + 5984979 c[2] - 1927165 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7790805 c[1] + 5985043 c[2] - \\
& 1927165 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7787061 c[1] + 5984339 c[2] - 1927133 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7787637 c[1] + 5984403 c[2] - \\
& 1927133 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7783317 c[1] + 5983635 c[2] - 1927101 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7783893 c[1] + 5983699 c[2] - \\
& 1927101 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7779573 c[1] + 5982931 c[2] - 1927069 c[3] + 337947 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7780149 c[1] + 5982995 c[2] - \\
& 1927069 c[3] + 337947 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7814565 c[1] + 5991427 c[2] - 1927725 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7811397 c[1] + 5990787 c[2] - \\
& 1927693 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7807653 c[1] + 5990083 c[2] - 1927661 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7808229 c[1] + 5990147 c[2] - \\
& 1927661 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7803909 c[1] + 5989379 c[2] - 1927629 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7804485 c[1] + 5989443 c[2] - \\
& 1927629 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7800165 c[1] + 5988675 c[2] - 1927597 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7800741 c[1] + 5988739 c[2] - \\
& 1927597 c[3] + 337963 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7796997 c[1] + 5988035 c[2] - 1927565 c[3] + 337963 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7831989 c[1] + 5996531 c[2] - \\
& 1928221 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7828245 c[1] + 5995827 c[2] - 1928189 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7828821 c[1] + 5995891 c[2] - \\
& 1928189 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&&
\end{aligned}$$

$$\begin{aligned}
& -7824501 c[1] + 5995123 c[2] - 1928157 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7825077 c[1] + 5995187 c[2] - \\
& 1928157 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7821333 c[1] + 5994483 c[2] - 1928125 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7817589 c[1] + 5993779 c[2] - \\
& 1928093 c[3] + 337979 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7813845 c[1] + 5993075 c[2] - 1928061 c[3] + 337979 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7848837 c[1] + 6001571 c[2] - \\
& 1928717 c[3] + 337995 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7849413 c[1] + 6001635 c[2] - 1928717 c[3] + 337995 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7845669 c[1] + 6000931 c[2] - \\
& 1928685 c[3] + 337995 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7841925 c[1] + 6000227 c[2] - 1928653 c[3] + 337995 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7838181 c[1] + 5999523 c[2] - \\
& 1928621 c[3] + 337995 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7834437 c[1] + 5998819 c[2] - 1928589 c[3] + 337995 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7862517 c[1] + 6005971 c[2] - \\
& 1929181 c[3] + 338011 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7858773 c[1] + 6005267 c[2] - 1929149 c[3] + 338011 c[4] - 34919 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7855029 c[1] + 6004563 c[2] - \\
& 1929117 c[3] + 338011 c[4] - 34919 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7618941 c[1] + 5926563 c[2] - 1919837 c[3] + 337547 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7639533 c[1] + 5932307 c[2] - \\
& 1920365 c[3] + 337563 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7635789 c[1] + 5931603 c[2] - 1920333 c[3] + 337563 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7636365 c[1] + 5931667 c[2] - \\
& 1920333 c[3] + 337563 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7633197 c[1] + 5931027 c[2] - 1920301 c[3] + 337563 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7660125 c[1] + 5938051 c[2] - \\
& 1920893 c[3] + 337579 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7656381 c[1] + 5937347 c[2] - 1920861 c[3] + 337579 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7656957 c[1] + 5937411 c[2] - \\
& 1920861 c[3] + 337579 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7653213 c[1] + 5936707 c[2] - 1920829 c[3] + 337579 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7653789 c[1] + 5936771 c[2] - \\
& 1920829 c[3] + 337579 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7650045 c[1] + 5936067 c[2] - 1920797 c[3] + 337579 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7680717 c[1] + 5943795 c[2] - \\
& 1921421 c[3] + 337595 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7677549 c[1] + 5943155 c[2] - 1921389 c[3] + 337595 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7673805 c[1] + 5942451 c[2] - \\
& 1921357 c[3] + 337595 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7674381 c[1] + 5942515 c[2] - 1921357 c[3] + 337595 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7670061 c[1] + 5941747 c[2] - \\
& 1921325 c[3] + 337595 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7670637 c[1] + 5941811 c[2] - 1921325 c[3] + 337595 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7698141 c[1] + 5948899 c[2] -
\end{aligned}$$

$$\begin{aligned}
& 1921917 c[3] + 337611 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7694397 c[1] + 5948195 c[2] - 1921885 c[3] + 337611 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7694973 c[1] + 5948259 c[2] - \\
& 1921885 c[3] + 337611 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7690653 c[1] + 5947491 c[2] - 1921853 c[3] + 337611 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7691229 c[1] + 5947555 c[2] - \\
& 1921853 c[3] + 337611 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7687485 c[1] + 5946851 c[2] - 1921821 c[3] + 337611 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7718733 c[1] + 5954643 c[2] - \\
& 1922445 c[3] + 337627 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7714989 c[1] + 5953939 c[2] - 1922413 c[3] + 337627 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7715565 c[1] + 5954003 c[2] - \\
& 1922413 c[3] + 337627 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7711245 c[1] + 5953235 c[2] - 1922381 c[3] + 337627 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7711821 c[1] + 5953299 c[2] - \\
& 1922381 c[3] + 337627 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7708077 c[1] + 5952595 c[2] - 1922349 c[3] + 337627 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7704333 c[1] + 5951891 c[2] - \\
& 1922317 c[3] + 337627 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7739325 c[1] + 5960387 c[2] - 1922973 c[3] + 337643 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7735581 c[1] + 5959683 c[2] - \\
& 1922941 c[3] + 337643 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7736157 c[1] + 5959747 c[2] - 1922941 c[3] + 337643 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7732413 c[1] + 5959043 c[2] - \\
& 1922909 c[3] + 337643 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7728669 c[1] + 5958339 c[2] - 1922877 c[3] + 337643 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7724925 c[1] + 5957635 c[2] - \\
& 1922845 c[3] + 337643 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7721181 c[1] + 5956931 c[2] - 1922813 c[3] + 337643 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7759917 c[1] + 5966131 c[2] - \\
& 1923501 c[3] + 337659 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7756749 c[1] + 5965491 c[2] - 1923469 c[3] + 337659 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7753005 c[1] + 5964787 c[2] - \\
& 1923437 c[3] + 337659 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7749261 c[1] + 5964083 c[2] - 1923405 c[3] + 337659 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7745517 c[1] + 5963379 c[2] - \\
& 1923373 c[3] + 337659 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7777341 c[1] + 5971235 c[2] - 1923997 c[3] + 337675 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7773597 c[1] + 5970531 c[2] - \\
& 1923965 c[3] + 337675 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7769853 c[1] + 5969827 c[2] - 1923933 c[3] + 337675 c[4] - 34911 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7790445 c[1] + 5975571 c[2] - \\
& 1924461 c[3] + 337691 c[4] - 34911 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7526277 c[1] + 5890419 c[2] - 1914589 c[3] + 337211 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7546869 c[1] + 5896163 c[2] - \\
& 1915117 c[3] + 337227 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7543701 c[1] + 5895523 c[2] - 1915085 c[3] + 337227 c[4] - 34903 c[5] +
\end{aligned}$$

$$\begin{aligned}
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7540533 c[1] + 5894883 c[2] - \\
& 1915053 c[3] + 337227 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7567461 c[1] + 5901907 c[2] - 1915645 c[3] + 337243 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7564293 c[1] + 5901267 c[2] - \\
& 1915613 c[3] + 337243 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7560549 c[1] + 5900563 c[2] - 1915581 c[3] + 337243 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7561125 c[1] + 5900627 c[2] - \\
& 1915581 c[3] + 337243 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7557381 c[1] + 5899923 c[2] - 1915549 c[3] + 337243 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7584885 c[1] + 5907011 c[2] - \\
& 1916141 c[3] + 337259 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7581141 c[1] + 5906307 c[2] - 1916109 c[3] + 337259 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7581717 c[1] + 5906371 c[2] - \\
& 1916109 c[3] + 337259 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7577397 c[1] + 5905603 c[2] - 1916077 c[3] + 337259 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7577973 c[1] + 5905667 c[2] - \\
& 1916077 c[3] + 337259 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7574229 c[1] + 5904963 c[2] - 1916045 c[3] + 337259 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7605477 c[1] + 5912755 c[2] - \\
& 1916669 c[3] + 337275 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7601733 c[1] + 5912051 c[2] - 1916637 c[3] + 337275 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7602309 c[1] + 5912115 c[2] - \\
& 1916637 c[3] + 337275 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7598565 c[1] + 5911411 c[2] - 1916605 c[3] + 337275 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7594821 c[1] + 5910707 c[2] - \\
& 1916573 c[3] + 337275 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7626069 c[1] + 5918499 c[2] - 1917197 c[3] + 337291 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7622901 c[1] + 5917859 c[2] - \\
& 1917165 c[3] + 337291 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7619157 c[1] + 5917155 c[2] - 1917133 c[3] + 337291 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7615413 c[1] + 5916451 c[2] - \\
& 1917101 c[3] + 337291 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7611669 c[1] + 5915747 c[2] - 1917069 c[3] + 337291 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7646661 c[1] + 5924243 c[2] - \\
& 1917725 c[3] + 337307 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7643493 c[1] + 5923603 c[2] - 1917693 c[3] + 337307 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7639749 c[1] + 5922899 c[2] - \\
& 1917661 c[3] + 337307 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7636005 c[1] + 5922195 c[2] - 1917629 c[3] + 337307 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7632261 c[1] + 5921491 c[2] - \\
& 1917597 c[3] + 337307 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7667957 c[1] + 5930051 c[2] - 1918253 c[3] + 337323 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7664085 c[1] + 5929347 c[2] - \\
& 1918221 c[3] + 337323 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7660341 c[1] + 5928643 c[2] - 1918189 c[3] + 337323 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7656597 c[1] + 5927939 c[2] - \\
& 1918157 c[3] + 337323 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&&
\end{aligned}$$

$$\begin{aligned}
& -7688549 c[1] + 5935795 c[2] - 1918781 c[3] + 337339 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7684677 c[1] + 5935091 c[2] - \\
& 1918749 c[3] + 337339 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7680933 c[1] + 5934387 c[2] - 1918717 c[3] + 337339 c[4] - 34903 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7705269 c[1] + 5940835 c[2] - \\
& 1919277 c[3] + 337355 c[4] - 34903 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7433613 c[1] + 5854275 c[2] - 1909341 c[3] + 336875 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7451037 c[1] + 5859379 c[2] - \\
& 1909837 c[3] + 336891 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7447869 c[1] + 5858739 c[2] - 1909805 c[3] + 336891 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7471629 c[1] + 5865123 c[2] - \\
& 1910365 c[3] + 336907 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7467885 c[1] + 5864419 c[2] - 1910333 c[3] + 336907 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7468461 c[1] + 5864483 c[2] - \\
& 1910333 c[3] + 336907 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7464717 c[1] + 5863779 c[2] - 1910301 c[3] + 336907 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7492221 c[1] + 5870867 c[2] - \\
& 1910893 c[3] + 336923 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7488477 c[1] + 5870163 c[2] - 1910861 c[3] + 336923 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7489053 c[1] + 5870227 c[2] - \\
& 1910861 c[3] + 336923 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7485309 c[1] + 5869523 c[2] - 1910829 c[3] + 336923 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7481565 c[1] + 5868819 c[2] - \\
& 1910797 c[3] + 336923 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7512813 c[1] + 5876611 c[2] - 1911421 c[3] + 336939 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7509645 c[1] + 5875971 c[2] - \\
& 1911389 c[3] + 336939 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7505901 c[1] + 5875267 c[2] - 1911357 c[3] + 336939 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7502157 c[1] + 5874563 c[2] - \\
& 1911325 c[3] + 336939 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7498413 c[1] + 5873859 c[2] - 1911293 c[3] + 336939 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7530237 c[1] + 5881715 c[2] - \\
& 1911917 c[3] + 336955 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7526493 c[1] + 5881011 c[2] - 1911885 c[3] + 336955 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7522749 c[1] + 5880307 c[2] - \\
& 1911853 c[3] + 336955 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7550829 c[1] + 5887459 c[2] - 1912445 c[3] + 336971 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7547085 c[1] + 5886755 c[2] - \\
& 1912413 c[3] + 336971 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7571421 c[1] + 5893203 c[2] - 1912973 c[3] + 336987 c[4] - 34895 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7592013 c[1] + 5898947 c[2] - \\
& 1913501 c[3] + 337003 c[4] - 34895 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7358373 c[1] + 5823235 c[2] - 1904589 c[3] + 336555 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7355205 c[1] + 5822595 c[2] - \\
& 1904557 c[3] + 336555 c[4] - 34887 c[5] + 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& \\
& -7378965 c[1] + 5828979 c[2] - 1905117 c[3] + 336571 c[4] - 34887 c[5] + \\
& 2129 c[6] - 71 c[7] + c[8] \geq 0 \&& -7375797 c[1] + 5828339 c[2] -
\end{aligned}$$

```

1905 085 c[3] + 336 571 c[4] - 34 887 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7372 053 c[1] + 5 827 635 c[2] - 1905 053 c[3] + 336 571 c[4] - 34 887 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7396 389 c[1] + 5 834 083 c[2] -
1905 613 c[3] + 336 587 c[4] - 34 887 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7392 645 c[1] + 5 833 379 c[2] - 1905 581 c[3] + 336 587 c[4] - 34 887 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7388 901 c[1] + 5 832 675 c[2] -
1905 549 c[3] + 336 587 c[4] - 34 887 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7416 981 c[1] + 5 839 827 c[2] - 1906 141 c[3] + 336 603 c[4] - 34 887 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7413 237 c[1] + 5 839 123 c[2] -
1906 109 c[3] + 336 603 c[4] - 34 887 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7437 573 c[1] + 5 845 571 c[2] - 1906 669 c[3] + 336 619 c[4] - 34 887 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7433 829 c[1] + 5 844 867 c[2] -
1906 637 c[3] + 336 619 c[4] - 34 887 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7458 165 c[1] + 5 851 315 c[2] - 1907 197 c[3] + 336 635 c[4] - 34 887 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7262 541 c[1] + 5 786 451 c[2] -
1899 309 c[3] + 336 219 c[4] - 34 879 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7283 133 c[1] + 5 792 195 c[2] - 1899 837 c[3] + 336 235 c[4] - 34 879 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7279 389 c[1] + 5 791 491 c[2] -
1899 805 c[3] + 336 235 c[4] - 34 879 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7303 725 c[1] + 5 797 939 c[2] - 1900 365 c[3] + 336 251 c[4] - 34 879 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7299 981 c[1] + 5 797 235 c[2] -
1900 333 c[3] + 336 251 c[4] - 34 879 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7324 317 c[1] + 5 803 683 c[2] - 1900 893 c[3] + 336 267 c[4] - 34 879 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7169 877 c[1] + 5 750 307 c[2] -
1894 061 c[3] + 335 883 c[4] - 34 871 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7190 469 c[1] + 5 756 051 c[2] - 1894 589 c[3] + 335 899 c[4] - 34 871 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0 && - 7211 061 c[1] + 5 761 795 c[2] -
1895 117 c[3] + 335 915 c[4] - 34 871 c[5] + 2129 c[6] - 71 c[7] + c[8] ≥ 0 &&
- 7077 213 c[1] + 5 714 163 c[2] - 1888 813 c[3] + 335 547 c[4] - 34 863 c[5] +
2129 c[6] - 71 c[7] + c[8] ≥ 0, Array[c, 8], Integers]

```

```

Out[6]= { {c[1] → 6 545 789, c[2] → 64 522 780, c[3] → 649 903 361, c[4] → 6 707 563 763,
c[5] → 71 075 114 863, c[6] → 0, c[7] → 0, c[8] → 1 132 367 732 240 930} }

```

```

In[7]:= Flatten[Array[c, 8] /.
{c[1] → 6 545 789, c[2] → 64 522 780, c[3] → 649 903 361, c[4] → 6 707 563 763,
c[5] → 71 075 114 863, c[6] → 0, c[7] → 0, c[8] → 1 132 367 732 240 930}]

```

```

Out[7]= {6 545 789, 64 522 780, 649 903 361,
6 707 563 763, 71 075 114 863, 0, 0, 1 132 367 732 240 930}

```

```

In[8]:= GCD[6 545 789, 64 522 780, 649 903 361,
6 707 563 763, 71 075 114 863, 0, 0, 1 132 367 732 240 930]

```

```

Out[8]= 1

```

```

In[®]:= {6 545 789, 64 522 780, 649 903 361, 6 707 563 763, 71 075 114 863,
          0, 0, 1 132 367 732 240 930}.Transpose[listinterlacingf1coeffmat]
{6 545 789, 64 522 780, 649 903 361,
  6 707 563 763, 71 075 114 863, 0, 0, 1 132 367 732 240 930}.

Out[®]= {-465 890 207, 355 483 889, -114 032 079, 19 958 761, -2 060 661, 125 611, -4189, 59}

Out[®]= {5 064 400, 364 147 856, 244 452 304, 723 185 488, 244 406 480, 603 489 936, 124 710 928,
          483 794 384, 483 804 416, 364 108 864, 723 192 320, 244 413 312, 603 496 768,
          124 717 760, 483 801 216, 5 022 208, 364 105 664, 364 115 696, 244 420 144, 603 503 600,
          124 724 592, 483 808 048, 5 029 040, 364 112 496, 244 416 944, 124 731 424, 364 119 328,
          244 423 776, 124 728 224, 124 735 056, 723 129 632, 483 748 560, 364 053 008,
          723 136 464, 244 367 488, 124 671 936, 483 755 392, 4 976 384, 364 059 840,
          723 143 296, 244 364 288, 603 447 744, 244 374 320, 124 678 768, 483 762 224,
          364 066 672, 723 150 128, 244 371 120, 603 454 576, 124 675 568, 483 759 024,
          244 381 152, 483 769 056, 364 073 504, 723 156 960, 244 377 952, 603 461 408,
          124 682 400, 483 765 856, 364 070 304, 483 775 888, 364 080 336, 723 163 792,
          244 384 784, 603 468 240, 483 772 688, 364 077 136, 244 381 584, 364 087 168,
          723 170 624, 603 475 072, 483 779 520, 364 083 968, 244 388 416, 483 786 352,
          364 090 800, 244 395 248, 244 311 632, 244 318 464, 124 622 912, 483 706 368,
          723 094 272, 244 325 296, 124 629 744, 483 713 200, 364 017 648, 723 101 104,
          603 405 552, 244 332 128, 483 720 032, 364 024 480, 723 107 936, 244 328 928,
          603 412 384, 483 726 864, 364 031 312, 723 114 768, 244 335 760, 603 419 216,
          483 723 664, 483 733 696, 364 038 144, 723 121 600, 244 342 592, 603 426 048,
          483 730 496, 364 034 944, 483 740 528, 364 044 976, 723 128 432, 603 432 880,
          483 737 328, 364 041 776, 244 346 224, 483 747 360, 723 135 264, 603 439 712,
          483 744 160, 364 048 608, 723 142 096, 603 446 544, 483 750 992, 483 757 824,
          244 276 272, 244 283 104, 483 671 008, 723 058 912, 244 289 936, 483 677 840,
          363 982 288, 723 065 744, 603 370 192, 483 684 672, 363 989 120, 723 072 576,
          244 293 568, 603 377 024, 483 681 472, 483 691 504, 363 995 952, 723 079 408,
          603 383 856, 483 688 304, 483 698 336, 723 086 240, 603 390 688, 483 695 136,
          363 999 584, 483 705 168, 723 093 072, 603 397 520, 483 701 968, 364 006 416,
          4934 464, 723 099 904, 603 404 352, 483 708 800, 4 941 296, 723 106 736, 603 411 184,
          723 113 568, 244 240 912, 483 635 648, 723 023 552, 483 642 480, 363 946 928,
          723 030 384, 603 334 832, 483 649 312, 363 953 760, 723 037 216, 603 341 664,
          483 646 112, 483 656 144, 723 044 048, 603 348 496, 483 652 944, 363 957 392,
          723 050 880, 603 355 328, 483 659 776, 723 057 712, 603 362 160, 723 064 544,
          723 071 376, 483 600 288, 722 988 192, 483 607 120, 722 995 024, 603 299 472,
          723 001 856, 603 306 304, 483 610 752, 723 008 688, 603 313 136, 723 015 520,
          603 319 968, 723 022 352, 722 952 832, 722 959 664, 603 264 112, 722 966 496,
          603 270 944, 722 973 328, 722 917 472, 722 924 304, 722 931 136, 722 882 112}

Out[®]= -661 126 352

In[®]:= Reverse[{6 545 789, 64 522 780, 649 903 361,
          6 707 563 763, 71 075 114 863, 0, 0, 1 132 367 732 240 930}]

Out[®]= {1 132 367 732 240 930, 0, 0, 71 075 114 863,
          6 707 563 763, 649 903 361, 64 522 780, 6 545 789}

```

```

In[6]:= i = 5;
last5[[i]]
interlacingpolylast5[[i]] =
{ (-13 + x)^5 (-11 + x)^9 (5 + x)^41 (8886 - 3871 x + 609 x^2 - 41 x^3 + x^4),
  (-13 + x)^5 (-11 + x)^9 (5 + x)^41 (8834 - 3867 x + 609 x^2 - 41 x^3 + x^4),
  (-13 + x)^6 (-11 + x)^9 (5 + x)^41 (-682 + 245 x - 28 x^2 + x^3),
  (-13 + x)^5 (-11 + x)^9 (5 + x)^41 (8678 - 3855 x + 609 x^2 - 41 x^3 + x^4),
  (-13 + x)^6 (-11 + x)^9 (5 + x)^41 (-670 + 245 x - 28 x^2 + x^3),
  (-13 + x)^5 (-11 + x)^9 (5 + x)^41 (8626 - 3851 x + 609 x^2 - 41 x^3 + x^4),
  (-13 + x)^6 (-11 + x)^9 (-9 + x) (5 + x)^41 (74 - 19 x + x^2),
  (-14 + x) (-13 + x)^5 (-11 + x)^11 (-5 + x) (5 + x)^41,
  (-13 + x)^6 (-11 + x)^9 (5 + x)^41 (-654 + 245 x - 28 x^2 + x^3),
  (-13 + x)^7 (-11 + x)^9 (-10 + x) (-5 + x) (5 + x)^41,
  (-13 + x)^6 (-11 + x)^10 (5 + x)^41 (58 - 17 x + x^2)};;
Coeffmatlast5[[i]] =
CoefficientList[Factor[interlacingpolylast5[[i]]] / mu[[last5[[i]]]], x];
Out[6]= (-13 + x)^6 (-11 + x)^10 (5 + x)^42 (109 - 22 x + x^2)

In[7]:= Coeffmatlast5[[i]] // MatrixForm
Out[7]/MatrixForm=

$$\begin{pmatrix} 8886 & -3871 & 609 & -41 & 1 \\ 8834 & -3867 & 609 & -41 & 1 \\ 8866 & -3867 & 609 & -41 & 1 \\ 8678 & -3855 & 609 & -41 & 1 \\ 8710 & -3855 & 609 & -41 & 1 \\ 8626 & -3851 & 609 & -41 & 1 \\ 8658 & -3851 & 609 & -41 & 1 \\ 8470 & -3839 & 609 & -41 & 1 \\ 8502 & -3839 & 609 & -41 & 1 \\ 8450 & -3835 & 609 & -41 & 1 \\ 8294 & -3823 & 609 & -41 & 1 \end{pmatrix}$$


In[8]:= gveclast5[[i]] = CoefficientList[D[last5[[i]], x] / mu[[last5[[i]]]] // Factor, x]
Out[8]= {532104, -232164, 36540, -2460, 60}

```

```

In[]:= Array[c, 5].Transpose[Coeffmatlast5[[i]]]
Out[]= {8886 c[1] - 3871 c[2] + 609 c[3] - 41 c[4] + c[5],
8834 c[1] - 3867 c[2] + 609 c[3] - 41 c[4] + c[5],
8866 c[1] - 3867 c[2] + 609 c[3] - 41 c[4] + c[5],
8678 c[1] - 3855 c[2] + 609 c[3] - 41 c[4] + c[5],
8710 c[1] - 3855 c[2] + 609 c[3] - 41 c[4] + c[5],
8626 c[1] - 3851 c[2] + 609 c[3] - 41 c[4] + c[5],
8658 c[1] - 3851 c[2] + 609 c[3] - 41 c[4] + c[5],
8470 c[1] - 3839 c[2] + 609 c[3] - 41 c[4] + c[5],
8502 c[1] - 3839 c[2] + 609 c[3] - 41 c[4] + c[5],
8450 c[1] - 3835 c[2] + 609 c[3] - 41 c[4] + c[5],
8294 c[1] - 3823 c[2] + 609 c[3] - 41 c[4] + c[5]}

In[]:= Array[c, 5].gveclast5[[i]]
Out[]= 532 104 c[1] - 232 164 c[2] + 36 540 c[3] - 2460 c[4] + 60 c[5]

In[]:= i
Flatten[Array[c, 5] /.
FindInstance[532 104 c[1] - 232 164 c[2] + 36 540 c[3] - 2460 c[4] + 60 c[5] < 0 &&
  8886 c[1] - 3871 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8834 c[1] - 3867 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8866 c[1] - 3867 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8678 c[1] - 3855 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8710 c[1] - 3855 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8626 c[1] - 3851 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8658 c[1] - 3851 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8470 c[1] - 3839 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8502 c[1] - 3839 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8450 c[1] - 3835 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
  8294 c[1] - 3823 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0, Array[c, 5], Integers]]

Out[]= 5
Out[]= {c[1], c[2], c[3], c[4], c[5]}

```

```

In[®]:= i
Flatten[Array[c, 5] .
  FindInstance[532 104 c[1] - 232 164 c[2] + 36 540 c[3] - 2460 c[4] + 60 c[5] < 0 &&
    8886 c[1] - 3871 c[2] + 609 c[3] - 41 c[4] + c[5] < 0 &&
    8834 c[1] - 3867 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8866 c[1] - 3867 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8678 c[1] - 3855 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8710 c[1] - 3855 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8626 c[1] - 3851 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8658 c[1] - 3851 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8470 c[1] - 3839 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8502 c[1] - 3839 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8450 c[1] - 3835 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0 &&
    8294 c[1] - 3823 c[2] + 609 c[3] - 41 c[4] + c[5] ≥ 0, Array[c, 5], Integers]]
Out[®]= 5
Out[®]= {-5577, 0, 0, 0, 49 456 281}
In[®]:= GCD[-5577, 0, 0, 0, 49 456 281]
Out[®]= 3
In[®]:= {-5577, 0, 0, 0, 49 456 281} / 3
Out[®]= {-1859, 0, 0, 0, 16 485 427}
In[®]:= {-1859, 0, 0, 0, 16 485 427}.Transpose[Coefmatlast5[[5]]]
{-1859, 0, 0, 0, 16 485 427}.gveclast5[[5]]
Out[®]= {-33 647, 63 021, 3533, 353 025, 293 537,
449 693, 390 205, 739 697, 680 209, 776 877, 1 066 881}
Out[®]= -55 716
In[®]:= Reverse[{-1859, 0, 0, 0, 16 485 427}]
Out[®]= {16 485 427, 0, 0, 0, -1859}

```