```
> # Set the parameters and functions
c :='c':
d :='d':
u :='u':
```

$$E4 := (4572\,c - 19890)\,u^7 + (60582\,c^2 + 36675 - 7620\,d^3 - 153630\,d)\,u^6 + (6096\,c^5 + 205290\,c^3 + 220050\,c - 44808\,d^4 - 415215\,d^2)\,u^5 + (11354\,c^6 + 300540\,c^4 + 550125\,c^2 - 508\,d^7 - 97692\,d^5 - 518850\,d^3)\,u^4 + (6858\,c^7 + 233370\,c^5 + 733500\,c^3 - 75915\,d^6 - 301950\,d^4)\,u^3 + (75252\,c^6 + 550125\,c^4 - 21336\,d^7 - 93690\,d^5)\,u^2 + (220050\,c^5 - 6858\,d^7 - 63405\,d^6)\,u + 36675\,c^6 - 34290\,d^7 :$$

```
print(Output);
# find Sturm's sequence``
 for j from 0 by 1 to 199 do
```

$$c := \frac{405}{100} + \frac{j+1}{200} \cdot \left(\frac{408}{100} - \frac{405}{100}\right) :$$

$$d := \frac{405}{100} + \frac{j}{200} \cdot \left(\frac{408}{100} - \frac{405}{100}\right) :$$

```
u :='u':
S := sturmseq(E4, u);
```

$$signnum := sturm\left(S, u, 4, \frac{57}{10}\right);$$

```
 with(ArrayTools) :
 Slength := Size(S, 2);
X := Array(1 .. Slength);
Y := Array(1 .. Slength);

    for i from 1 to Slength do
 # Find sgn [s_{E_{4,i}}(0)]
      u := 4;
      X[i] := signum(S[i]);
```

$$\# \text{ Find sgn } \left[s_{E_{4,i}}\left(\frac{57}{10}\right)\right]$$

$$u := \frac{57}{10} :$$

```
      Y[i] := signum(S[i]);
   end do;
 # show the final results
 print( ['a'[180 + j],'a'[181 + j], sgn(s['E'[4, 180 + j]](4)), sgn(s['E'[4, 180 + j]](5.7))]
      = [evalf(d, 5), evalf(c, 5), X, Y]) ;
end do:
```

Output

$$\left[a_{180}, a_{181}, sgn\left(s_{E_{4,180}}(4)\right), sgn\left(s_{E_{4,180}}(5.7)\right)\right] = [4.0500, 4.0502, [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1], [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1]]$$

$$\left[a_{181}, a_{182}, sgn\left(s_{E_{4,181}}(4)\right), sgn\left(s_{E_{4,181}}(5.7)\right)\right] = [4.0502, 4.0503, [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1], [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1]]$$

$$\left[a_{182}, a_{183}, sgn\left(s_{E_{4,182}}(4)\right), sgn\left(s_{E_{4,182}}(5.7)\right)\right] = [4.0503, 4.0504, [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1], [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1]]$$

$$\left[a_{183}, a_{184}, sgn\left(s_{E_{4,183}}(4)\right), sgn\left(s_{E_{4,183}}(5.7)\right)\right] = [4.0504, 4.0506, [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1], [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1]]$$

$$\left[a_{184}, a_{185}, sgn\left(s_{E_{4,184}}(4)\right), sgn\left(s_{E_{4,184}}(5.7)\right)\right] = [4.0506, 4.0508, [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1], [-1\ 1\ 1\ 1\ -1\ -1\ 1\ -1]]$$

$$\left[a_{185}, a_{186}, sgn\left(s_{E_{4,185}}(4)\right), sgn\left(s_{E_{4,185}}(5.7)\right)\right] = \left[4.0508, 4.0509, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{186}, a_{187}, sgn\left(s_{E_{4,186}}(4)\right), sgn\left(s_{E_{4,186}}(5.7)\right)\right] = \left[4.0509, 4.0510, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{187}, a_{188}, sgn\left(s_{E_{4,187}}(4)\right), sgn\left(s_{E_{4,187}}(5.7)\right)\right] = \left[4.0510, 4.0512, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{188}, a_{189}, sgn\left(s_{E_{4,188}}(4)\right), sgn\left(s_{E_{4,188}}(5.7)\right)\right] = \left[4.0512, 4.0514, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{189}, a_{190}, sgn\left(s_{E_{4,189}}(4)\right), sgn\left(s_{E_{4,189}}(5.7)\right)\right] = \left[4.0514, 4.0515, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{190}, a_{191}, sgn\left(s_{E_{4,190}}(4)\right), sgn\left(s_{E_{4,190}}(5.7)\right)\right] = \left[4.0515, 4.0516, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{191}, a_{192}, sgn\left(s_{E_{4,191}}(4)\right), sgn\left(s_{E_{4,191}}(5.7)\right)\right] = \left[4.0516, 4.0518, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{192}, a_{193}, sgn\left(s_{E_{4,192}}(4)\right), sgn\left(s_{E_{4,192}}(5.7)\right)\right] = \left[4.0518, 4.0520, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{193}, a_{194}, sgn\left(s_{E_{4,193}}(4)\right), sgn\left(s_{E_{4,193}}(5.7)\right)\right] = \left[4.0520, 4.0521, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{194}, a_{195}, sgn\left(s_{E_{4,194}}(4)\right), sgn\left(s_{E_{4,194}}(5.7)\right)\right] = \left[4.0521, 4.0522, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{195}, a_{196}, sgn\left(s_{E_{4,195}}(4)\right), sgn\left(s_{E_{4,195}}(5.7)\right)\right] = \left[4.0522, 4.0524, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{196}, a_{197}, sgn\left(s_{E_{4,196}}(4)\right), sgn\left(s_{E_{4,196}}(5.7)\right)\right] = \left[4.0524, 4.0526, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{197}, a_{198}, sgn\left(s_{E_{4,197}}(4)\right), sgn\left(s_{E_{4,197}}(5.7)\right)\right] = \left[4.0526, 4.0527, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{198}, a_{199}, sgn\left(s_{E_{4,198}}(4)\right), sgn\left(s_{E_{4,198}}(5.7)\right)\right] = \left[4.0527, 4.0528, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{199}, a_{200}, sgn\left(s_{E_{4,199}}(4)\right), sgn\left(s_{E_{4,199}}(5.7)\right)\right] = \left[4.0528, 4.0530, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{200}, a_{201}, sgn\left(s_{E_{4,200}}(4)\right), sgn\left(s_{E_{4,200}}(5.7)\right)\right] = \left[4.0530, 4.0532, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{201}, a_{202}, sgn\left(s_{E_{4,201}}(4)\right), sgn\left(s_{E_{4,201}}(5.7)\right)\right] = \left[4.0532, 4.0533, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{202}, a_{203}, sgn\left(s_{E_{4,202}}(4)\right), sgn\left(s_{E_{4,202}}(5.7)\right)\right] = \left[4.0533, 4.0534, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{203}, a_{204}, sgn\left(s_{E_{4,203}}(4)\right), sgn\left(s_{E_{4,203}}(5.7)\right)\right] = \left[4.0534, 4.0536, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{204}, a_{205}, sgn\left(s_{E_{4,204}}(4)\right), sgn\left(s_{E_{4,204}}(5.7)\right)\right] = \left[4.0536, 4.0538, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{205}, a_{206}, sgn\left(s_{E_{4,205}}(4)\right), sgn\left(s_{E_{4,205}}(5.7)\right)\right] = \left[4.0538, 4.0539, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{206}, a_{207}, sgn\left(s_{E_{4,206}}(4)\right), sgn\left(s_{E_{4,206}}(5.7)\right)\right] = \left[4.0539, 4.0540, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{207}, a_{208}, sgn\left(s_{E_{4,207}}(4)\right), sgn\left(s_{E_{4,207}}(5.7)\right)\right] = \left[4.0540, 4.0542, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{208}, a_{209}, sgn\left(s_{E_{4,208}}(4)\right), sgn\left(s_{E_{4,208}}(5.7)\right)\right] = \left[4.0542, 4.0544, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{209}, a_{210}, sgn\left(s_{E_{4,209}}(4)\right), sgn\left(s_{E_{4,209}}(5.7)\right)\right] = \left[4.0544, 4.0545, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{210}, a_{211}, sgn\left(s_{E_{4,210}}(4)\right), sgn\left(s_{E_{4,210}}(5.7)\right)\right] = \left[4.0545, 4.0546, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{211}, a_{212}, sgn\left(s_{E_{4,211}}(4)\right), sgn\left(s_{E_{4,211}}(5.7)\right)\right] = \left[4.0546, 4.0548, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{212}, a_{213}, sgn\left(s_{E_{4,212}}(4)\right), sgn\left(s_{E_{4,212}}(5.7)\right)\right] = \left[4.0548, 4.0550, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{213}, a_{214}, sgn\left(s_{E_{4,213}}(4)\right), sgn\left(s_{E_{4,213}}(5.7)\right)\right] = \left[4.0550, 4.0551, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{214}, a_{215}, sgn\left(s_{E_{4,214}}(4)\right), sgn\left(s_{E_{4,214}}(5.7)\right)\right] = \left[4.0551, 4.0552, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{215}, a_{216}, sgn\left(s_{E_{4,215}}(4)\right), sgn\left(s_{E_{4,215}}(5.7)\right)\right] = \left[4.0552, 4.0554, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{216}, a_{217}, sgn\left(s_{E_{4,216}}(4)\right), sgn\left(s_{E_{4,216}}(5.7)\right)\right] = \left[4.0554, 4.0556, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{217}, a_{218}, sgn\left(s_{E_{4,217}}(4)\right), sgn\left(s_{E_{4,217}}(5.7)\right)\right] = \left[4.0556, 4.0557, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{218}, a_{219}, sgn\left(s_{E_{4,218}}(4)\right), sgn\left(s_{E_{4,218}}(5.7)\right)\right] = \left[4.0557, 4.0558, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{219}, a_{220}, sgn\left(s_{E_{4,219}}(4)\right), sgn\left(s_{E_{4,219}}(5.7)\right)\right] = \left[4.0558, 4.0560, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{220}, a_{221}, sgn\left(s_{E_{4,220}}(4)\right), sgn\left(s_{E_{4,220}}(5.7)\right)\right] = \left[4.0560, 4.0562, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{221}, a_{222}, sgn\left(s_{E_{4,221}}(4)\right), sgn\left(s_{E_{4,221}}(5.7)\right)\right] = \left[4.0562, 4.0563, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{222}, a_{223}, sgn\left(s_{E_{4,222}}(4)\right), sgn\left(s_{E_{4,222}}(5.7)\right)\right] = \left[4.0563, 4.0564, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{223}, a_{224}, sgn\left(s_{E_{4,223}}(4)\right), sgn\left(s_{E_{4,223}}(5.7)\right)\right] = \left[4.0564, 4.0566, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{224}, a_{225}, sgn\left(s_{E_{4,224}}(4)\right), sgn\left(s_{E_{4,224}}(5.7)\right)\right] = \left[4.0566, 4.0568, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{225}, a_{226}, sgn\left(s_{E_{4,225}}(4)\right), sgn\left(s_{E_{4,225}}(5.7)\right)\right] = \left[4.0568, 4.0569, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{226}, a_{227}, sgn\left(s_{E_{4,226}}(4)\right), sgn\left(s_{E_{4,226}}(5.7)\right)\right] = \left[4.0569, 4.0570, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{227}, a_{228}, sgn\left(s_{E_{4,227}}(4)\right), sgn\left(s_{E_{4,227}}(5.7)\right)\right] = \left[4.0570, 4.0572, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{228}, a_{229}, sgn\left(s_{E_{4,228}}(4)\right), sgn\left(s_{E_{4,228}}(5.7)\right)\right] = \left[4.0572, 4.0574, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{229}, a_{230}, sgn\left(s_{E_{4,229}}(4)\right), sgn\left(s_{E_{4,229}}(5.7)\right)\right] = \left[4.0574, 4.0575, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{230}, a_{231}, sgn\left(s_{E_{4,230}}(4)\right), sgn\left(s_{E_{4,230}}(5.7)\right)\right] = \left[4.0575, 4.0576, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{231}, a_{232}, sgn\left(s_{E_{4,231}}(4)\right), sgn\left(s_{E_{4,231}}(5.7)\right)\right] = \left[4.0576, 4.0578, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{232}, a_{233}, sgn\left(s_{E_{4,232}}(4)\right), sgn\left(s_{E_{4,232}}(5.7)\right)\right] = \left[4.0578, 4.0580, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{233}, a_{234}, sgn\left(s_{E_{4,233}}(4)\right), sgn\left(s_{E_{4,233}}(5.7)\right)\right] = \left[4.0580, 4.0581, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{234}, a_{235}, sgn\left(s_{E_{4,234}}(4)\right), sgn\left(s_{E_{4,234}}(5.7)\right)\right] = \left[4.0581, 4.0582, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{235}, a_{236}, sgn\left(s_{E_{4,235}}(4)\right), sgn\left(s_{E_{4,235}}(5.7)\right)\right] = \left[4.0582, 4.0584, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{236}, a_{237}, sgn\left(s_{E_{4,236}}(4)\right), sgn\left(s_{E_{4,236}}(5.7)\right)\right] = \left[4.0584, 4.0586, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{237}, a_{238}, sgn\left(s_{E_{4,237}}(4)\right), sgn\left(s_{E_{4,237}}(5.7)\right)\right] = \left[4.0586, 4.0587, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{238}, a_{239}, sgn\left(s_{E_{4,238}}(4)\right), sgn\left(s_{E_{4,238}}(5.7)\right)\right] = \left[4.0587, 4.0588, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{239}, a_{240}, sgn\left(s_{E_{4,239}}(4)\right), sgn\left(s_{E_{4,239}}(5.7)\right)\right] = \left[4.0588, 4.0590, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{240}, a_{241}, sgn\left(s_{E_{4,240}}(4)\right), sgn\left(s_{E_{4,240}}(5.7)\right)\right] = \left[4.0590, 4.0592, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{241}, a_{242}, sgn\left(s_{E_{4,241}}(4)\right), sgn\left(s_{E_{4,241}}(5.7)\right)\right] = \left[4.0592, 4.0593, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{242}, a_{243}, sgn\left(s_{E_{4,242}}(4)\right), sgn\left(s_{E_{4,242}}(5.7)\right)\right] = \left[4.0593, 4.0594, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{243}, a_{244}, sgn\left(s_{E_{4,243}}(4)\right), sgn\left(s_{E_{4,243}}(5.7)\right)\right] = \left[4.0594, 4.0596, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{244}, a_{245}, sgn\left(s_{E_{4,244}}(4)\right), sgn\left(s_{E_{4,244}}(5.7)\right)\right] = \left[4.0596, 4.0598, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{245}, a_{246}, sgn\left(s_{E_{4,245}}(4)\right), sgn\left(s_{E_{4,245}}(5.7)\right)\right] = \left[4.0598, 4.0599, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{246}, a_{247}, sgn\left(s_{E_{4,246}}(4)\right), sgn\left(s_{E_{4,246}}(5.7)\right)\right] = \left[4.0599, 4.0600, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{247}, a_{248}, sgn\left(s_{E_{4,247}}(4)\right), sgn\left(s_{E_{4,247}}(5.7)\right)\right] = \left[4.0600, 4.0602, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{248}, a_{249}, sgn\left(s_{E_{4,248}}(4)\right), sgn\left(s_{E_{4,248}}(5.7)\right)\right] = \left[4.0602, 4.0604, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{249}, a_{250}, sgn\left(s_{E_{4,249}}(4)\right), sgn\left(s_{E_{4,249}}(5.7)\right)\right] = \left[4.0604, 4.0605, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{250}, a_{251}, sgn\left(s_{E_{4,250}}(4)\right), sgn\left(s_{E_{4,250}}(5.7)\right)\right] = \left[4.0605, 4.0606, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{251}, a_{252}, sgn\left(s_{E_{4,251}}(4)\right), sgn\left(s_{E_{4,251}}(5.7)\right)\right] = \left[4.0606, 4.0608, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{252}, a_{253}, sgn\left(s_{E_{4,252}}(4)\right), sgn\left(s_{E_{4,252}}(5.7)\right)\right] = \left[4.0608, 4.0610, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{253}, a_{254}, sgn\left(s_{E_{4,253}}(4)\right), sgn\left(s_{E_{4,253}}(5.7)\right)\right] = \left[4.0610, 4.0611, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{254}, a_{255}, sgn\left(s_{E_{4,254}}(4)\right), sgn\left(s_{E_{4,254}}(5.7)\right)\right] = \left[4.0611, 4.0612, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{255}, a_{256}, sgn\left(s_{E_{4,255}}(4)\right), sgn\left(s_{E_{4,255}}(5.7)\right)\right] = \left[4.0612, 4.0614, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{256}, a_{257}, sgn\left(s_{E_{4,256}}(4)\right), sgn\left(s_{E_{4,256}}(5.7)\right)\right] = \left[4.0614, 4.0616, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{257}, a_{258}, sgn\left(s_{E_{4,257}}(4)\right), sgn\left(s_{E_{4,257}}(5.7)\right)\right] = \left[4.0616, 4.0617, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{258}, a_{259}, sgn\left(s_{E_{4,258}}(4)\right), sgn\left(s_{E_{4,258}}(5.7)\right)\right] = \left[4.0617, 4.0618, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{259}, a_{260}, sgn\left(s_{E_{4,259}}(4)\right), sgn\left(s_{E_{4,259}}(5.7)\right)\right] = \left[4.0618, 4.0620, \begin{bmatrix} \mathbf{-1} & \mathbf{-1} & \mathbf{1} & \mathbf{1} & \mathbf{-1} & \mathbf{-1} & \mathbf{1} & \mathbf{-1} \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{260}, a_{261}, sgn\left(s_{E_{4,260}}(4)\right), sgn\left(s_{E_{4,260}}(5.7)\right)\right] = \left[4.0620, 4.0622, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{261}, a_{262}, sgn\left(s_{E_{4,261}}(4)\right), sgn\left(s_{E_{4,261}}(5.7)\right)\right] = \left[4.0622, 4.0623, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{262}, a_{263}, sgn\left(s_{E_{4,262}}(4)\right), sgn\left(s_{E_{4,262}}(5.7)\right)\right] = \left[4.0623, 4.0624, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{263}, a_{264}, sgn\left(s_{E_{4,263}}(4)\right), sgn\left(s_{E_{4,263}}(5.7)\right)\right] = \left[4.0624, 4.0626, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{264}, a_{265}, sgn\left(s_{E_{4,264}}(4)\right), sgn\left(s_{E_{4,264}}(5.7)\right)\right] = \left[4.0626, 4.0628, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{265}, a_{266}, sgn\left(s_{E_{4,265}}(4)\right), sgn\left(s_{E_{4,265}}(5.7)\right)\right] = \left[4.0628, 4.0629, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{266}, a_{267}, sgn\left(s_{E_{4,266}}(4)\right), sgn\left(s_{E_{4,266}}(5.7)\right)\right] = \left[4.0629, 4.0630, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{267}, a_{268}, sgn\left(s_{E_{4,267}}(4)\right), sgn\left(s_{E_{4,267}}(5.7)\right)\right] = \left[4.0630, 4.0632, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{268}, a_{269}, sgn\left(s_{E_{4,268}}(4)\right), sgn\left(s_{E_{4,268}}(5.7)\right)\right] = \left[4.0632, 4.0634, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{269}, a_{270}, sgn\left(s_{E_{4,269}}(4)\right), sgn\left(s_{E_{4,269}}(5.7)\right)\right] = \left[4.0634, 4.0635, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{270}, a_{271}, sgn\left(s_{E_{4,270}}(4)\right), sgn\left(s_{E_{4,270}}(5.7)\right)\right] = \left[4.0635, 4.0636, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{271}, a_{272}, sgn\left(s_{E_{4,271}}(4)\right), sgn\left(s_{E_{4,271}}(5.7)\right)\right] = \left[4.0636, 4.0638, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{272}, a_{273}, sgn\left(s_{E_{4,272}}(4)\right), sgn\left(s_{E_{4,272}}(5.7)\right)\right] = \left[4.0638, 4.0640, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{273}, a_{274}, sgn\left(s_{E_{4,273}}(4)\right), sgn\left(s_{E_{4,273}}(5.7)\right)\right] = \left[4.0640, 4.0641, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{274}, a_{275}, sgn\left(s_{E_{4,274}}(4)\right), sgn\left(s_{E_{4,274}}(5.7)\right)\right] = \left[4.0641, 4.0642, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{275}, a_{276}, sgn\left(s_{E_{4,275}}(4)\right), sgn\left(s_{E_{4,275}}(5.7)\right)\right] = \left[4.0642, 4.0644, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{276}, a_{277}, sgn\left(s_{E_{4,276}}(4)\right), sgn\left(s_{E_{4,276}}(5.7)\right)\right] = \left[4.0644, 4.0646, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{277}, a_{278}, sgn\left(s_{E_{4,277}}(4)\right), sgn\left(s_{E_{4,277}}(5.7)\right)\right] = \left[4.0646, 4.0647, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{278}, a_{279}, sgn\left(s_{E_{4,278}}(4)\right), sgn\left(s_{E_{4,278}}(5.7)\right)\right] = \left[4.0647, 4.0648, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{279}, a_{280}, sgn\left(s_{E_{4,279}}(4)\right), sgn\left(s_{E_{4,279}}(5.7)\right)\right] = \left[4.0648, 4.0650, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{280}, a_{281}, sgn\left(s_{E_{4,280}}(4)\right), sgn\left(s_{E_{4,280}}(5.7)\right)\right] = \left[4.0650, 4.0652, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{281}, a_{282}, sgn\left(s_{E_{4,281}}(4)\right), sgn\left(s_{E_{4,281}}(5.7)\right)\right] = \left[4.0652, 4.0653, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{282}, a_{283}, sgn\left(s_{E_{4,282}}(4)\right), sgn\left(s_{E_{4,282}}(5.7)\right)\right] = \left[4.0653, 4.0654, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{283}, a_{284}, sgn\left(s_{E_{4,283}}(4)\right), sgn\left(s_{E_{4,283}}(5.7)\right)\right] = \left[4.0654, 4.0656, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{284}, a_{285}, sgn\left(s_{E_{4,284}}(4)\right), sgn\left(s_{E_{4,284}}(5.7)\right)\right] = \left[4.0656, 4.0658, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{285}, a_{286}, sgn\left(s_{E_{4,285}}(4)\right), sgn\left(s_{E_{4,285}}(5.7)\right)\right] = \left[4.0658, 4.0659, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{286}, a_{287}, sgn\left(s_{E_{4,286}}(4)\right), sgn\left(s_{E_{4,286}}(5.7)\right)\right] = \left[4.0659, 4.0660, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{287}, a_{288}, sgn\left(s_{E_{4,287}}(4)\right), sgn\left(s_{E_{4,287}}(5.7)\right)\right] = \left[4.0660, 4.0662, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{288}, a_{289}, sgn\left(s_{E_{4,288}}(4)\right), sgn\left(s_{E_{4,288}}(5.7)\right)\right] = \left[4.0662, 4.0664, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{289}, a_{290}, sgn\left(s_{E_{4,289}}(4)\right), sgn\left(s_{E_{4,289}}(5.7)\right)\right] = \left[4.0664, 4.0665, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{290}, a_{291}, sgn\left(s_{E_{4,290}}(4)\right), sgn\left(s_{E_{4,290}}(5.7)\right)\right] = \left[4.0665, 4.0666, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{291}, a_{292}, sgn\left(s_{E_{4,291}}(4)\right), sgn\left(s_{E_{4,291}}(5.7)\right)\right] = \left[4.0666, 4.0668, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{292}, a_{293}, sgn\left(s_{E_{4,292}}(4)\right), sgn\left(s_{E_{4,292}}(5.7)\right)\right] = \left[4.0668, 4.0670, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{293}, a_{294}, sgn\left(s_{E_{4,293}}(4)\right), sgn\left(s_{E_{4,293}}(5.7)\right)\right] = \left[4.0670, 4.0671, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{294}, a_{295}, sgn\left(s_{E_{4,294}}(4)\right), sgn\left(s_{E_{4,294}}(5.7)\right)\right] = \left[4.0671, 4.0672, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{295}, a_{296}, sgn\left(s_{E_{4,295}}(4)\right), sgn\left(s_{E_{4,295}}(5.7)\right)\right] = \left[4.0672, 4.0674, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{296}, a_{297}, sgn\left(s_{E_{4,296}}(4)\right), sgn\left(s_{E_{4,296}}(5.7)\right)\right] = \left[4.0674, 4.0676, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{297}, a_{298}, sgn\left(s_{E_{4,297}}(4)\right), sgn\left(s_{E_{4,297}}(5.7)\right)\right] = \left[4.0676, 4.0677, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{298}, a_{299}, sgn\left(s_{E_{4,298}}(4)\right), sgn\left(s_{E_{4,298}}(5.7)\right)\right] = \left[4.0677, 4.0678, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{299}, a_{300}, sgn\left(s_{E_{4,299}}(4)\right), sgn\left(s_{E_{4,299}}(5.7)\right)\right] = \left[4.0678, 4.0680, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{300}, a_{301}, sgn\left(s_{E_{4,300}}(4)\right), sgn\left(s_{E_{4,300}}(5.7)\right)\right] = \left[4.0680, 4.0682, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{301}, a_{302}, sgn\left(s_{E_{4,301}}(4)\right), sgn\left(s_{E_{4,301}}(5.7)\right)\right] = \left[4.0682, 4.0683, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{302}, a_{303}, sgn\left(s_{E_{4,302}}(4)\right), sgn\left(s_{E_{4,302}}(5.7)\right)\right] = \left[4.0683, 4.0684, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{303}, a_{304}, sgn\left(s_{E_{4,303}}(4)\right), sgn\left(s_{E_{4,303}}(5.7)\right)\right] = \left[4.0684, 4.0686, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{304}, a_{305}, sgn\left(s_{E_{4,304}}(4)\right), sgn\left(s_{E_{4,304}}(5.7)\right)\right] = \left[4.0686, 4.0688, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{305}, a_{306}, sgn\left(s_{E_{4,305}}(4)\right), sgn\left(s_{E_{4,305}}(5.7)\right)\right] = \left[4.0688, 4.0689, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{306}, a_{307}, sgn\left(s_{E_{4,306}}(4)\right), sgn\left(s_{E_{4,306}}(5.7)\right)\right] = \left[4.0689, 4.0690, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{307}, a_{308}, sgn\left(s_{E_{4,307}}(4)\right), sgn\left(s_{E_{4,307}}(5.7)\right)\right] = \left[4.0690, 4.0692, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{308}, a_{309}, sgn\left(s_{E_{4,308}}(4)\right), sgn\left(s_{E_{4,308}}(5.7)\right)\right] = \left[4.0692, 4.0694, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{309}, a_{310}, sgn\left(s_{E_{4,309}}(4)\right), sgn\left(s_{E_{4,309}}(5.7)\right)\right] = \left[4.0694, 4.0695, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{310}, a_{311}, sgn\left(s_{E_{4,310}}(4)\right), sgn\left(s_{E_{4,310}}(5.7)\right)\right] = \left[4.0695, 4.0696, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{311}, a_{312}, sgn\left(s_{E_{4,311}}(4)\right), sgn\left(s_{E_{4,311}}(5.7)\right)\right] = \left[4.0696, 4.0698, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{312}, a_{313}, sgn\left(s_{E_{4,312}}(4)\right), sgn\left(s_{E_{4,312}}(5.7)\right)\right] = \left[4.0698, 4.0700, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{313}, a_{314}, sgn\left(s_{E_{4,313}}(4)\right), sgn\left(s_{E_{4,313}}(5.7)\right)\right] = \left[4.0700, 4.0701, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{314}, a_{315}, sgn\left(s_{E_{4,314}}(4)\right), sgn\left(s_{E_{4,314}}(5.7)\right)\right] = \left[4.0701, 4.0702, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{315}, a_{316}, sgn\left(s_{E_{4,315}}(4)\right), sgn\left(s_{E_{4,315}}(5.7)\right)\right] = \left[4.0702, 4.0704, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{316}, a_{317}, sgn\left(s_{E_{4,316}}(4)\right), sgn\left(s_{E_{4,316}}(5.7)\right)\right] = \left[4.0704, 4.0706, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{317}, a_{318}, sgn\left(s_{E_{4,317}}(4)\right), sgn\left(s_{E_{4,317}}(5.7)\right)\right] = \left[4.0706, 4.0707, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{318}, a_{319}, sgn\left(s_{E_{4,318}}(4)\right), sgn\left(s_{E_{4,318}}(5.7)\right)\right] = \left[4.0707, 4.0708, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{319}, a_{320}, sgn\left(s_{E_{4,319}}(4)\right), sgn\left(s_{E_{4,319}}(5.7)\right)\right] = \left[4.0708, 4.0710, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{320}, a_{321}, sgn\left(s_{E_{4,320}}(4)\right), sgn\left(s_{E_{4,320}}(5.7)\right)\right] = \left[4.0710, 4.0712, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{321}, a_{322}, sgn\left(s_{E_{4,321}}(4)\right), sgn\left(s_{E_{4,321}}(5.7)\right)\right] = \left[4.0712, 4.0713, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{322}, a_{323}, sgn\left(s_{E_{4,322}}(4)\right), sgn\left(s_{E_{4,322}}(5.7)\right)\right] = \left[4.0713, 4.0714, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{323}, a_{324}, sgn\left(s_{E_{4,323}}(4)\right), sgn\left(s_{E_{4,323}}(5.7)\right)\right] = \left[4.0714, 4.0716, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{324}, a_{325}, sgn\left(s_{E_{4,324}}(4)\right), sgn\left(s_{E_{4,324}}(5.7)\right)\right] = \left[4.0716, 4.0718, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{325}, a_{326}, sgn\left(s_{E_{4,325}}(4)\right), sgn\left(s_{E_{4,325}}(5.7)\right)\right] = \left[4.0718, 4.0719, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{326}, a_{327}, sgn\left(s_{E_{4,326}}(4)\right), sgn\left(s_{E_{4,326}}(5.7)\right)\right] = \left[4.0719, 4.0720, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{327}, a_{328}, sgn\left(s_{E_{4,327}}(4)\right), sgn\left(s_{E_{4,327}}(5.7)\right)\right] = \left[4.0720, 4.0722, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{328}, a_{329}, sgn\left(s_{E_{4,328}}(4)\right), sgn\left(s_{E_{4,328}}(5.7)\right)\right] = \left[4.0722, 4.0724, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{329}, a_{330}, sgn\left(s_{E_{4,329}}(4)\right), sgn\left(s_{E_{4,329}}(5.7)\right)\right] = \left[4.0724, 4.0725, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{330}, a_{331}, sgn\left(s_{E_{4,330}}(4)\right), sgn\left(s_{E_{4,330}}(5.7)\right)\right] = \left[4.0725, 4.0726, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{331}, a_{332}, sgn\left(s_{E_{4,331}}(4)\right), sgn\left(s_{E_{4,331}}(5.7)\right)\right] = \left[4.0726, 4.0728, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{332}, a_{333}, sgn\left(s_{E_{4,332}}(4)\right), sgn\left(s_{E_{4,332}}(5.7)\right)\right] = \left[4.0728, 4.0730, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{333}, a_{334}, sgn\left(s_{E_{4,333}}(4)\right), sgn\left(s_{E_{4,333}}(5.7)\right)\right] = \left[4.0730, 4.0731, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{334}, a_{335}, sgn\left(s_{E_{4,334}}(4)\right), sgn\left(s_{E_{4,334}}(5.7)\right)\right] = \left[4.0731, 4.0732, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{335}, a_{336}, sgn\left(s_{E_{4,335}}(4)\right), sgn\left(s_{E_{4,335}}(5.7)\right)\right] = \left[4.0732, 4.0734, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{336}, a_{337}, sgn\left(s_{E_{4,336}}(4)\right), sgn\left(s_{E_{4,336}}(5.7)\right)\right] = \left[4.0734, 4.0736, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{337}, a_{338}, sgn\left(s_{E_{4,337}}(4)\right), sgn\left(s_{E_{4,337}}(5.7)\right)\right] = \left[4.0736, 4.0737, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{338}, a_{339}, sgn\left(s_{E_{4,338}}(4)\right), sgn\left(s_{E_{4,338}}(5.7)\right)\right] = \left[4.0737, 4.0738, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{339}, a_{340}, sgn\left(s_{E_{4,339}}(4)\right), sgn\left(s_{E_{4,339}}(5.7)\right)\right] = \left[4.0738, 4.0740, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{340}, a_{341}, sgn\left(s_{E_{4,340}}(4)\right), sgn\left(s_{E_{4,340}}(5.7)\right)\right] = \left[4.0740, 4.0742, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{341}, a_{342}, sgn\left(s_{E_{4,341}}(4)\right), sgn\left(s_{E_{4,341}}(5.7)\right)\right] = \left[4.0742, 4.0743, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{342}, a_{343}, sgn\left(s_{E_{4,342}}(4)\right), sgn\left(s_{E_{4,342}}(5.7)\right)\right] = \left[4.0743, 4.0744, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{343}, a_{344}, sgn\left(s_{E_{4,343}}(4)\right), sgn\left(s_{E_{4,343}}(5.7)\right)\right] = \left[4.0744, 4.0746, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{344}, a_{345}, sgn\left(s_{E_{4,344}}(4)\right), sgn\left(s_{E_{4,344}}(5.7)\right)\right] = \left[4.0746, 4.0748, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{345}, a_{346}, sgn\left(s_{E_{4,345}}(4)\right), sgn\left(s_{E_{4,345}}(5.7)\right)\right] = \left[4.0748, 4.0749, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{346}, a_{347}, sgn\left(s_{E_{4,346}}(4)\right), sgn\left(s_{E_{4,346}}(5.7)\right)\right] = \left[4.0749, 4.0750, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{347}, a_{348}, sgn\left(s_{E_{4,347}}(4)\right), sgn\left(s_{E_{4,347}}(5.7)\right)\right] = \left[4.0750, 4.0752, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{348}, a_{349}, sgn\left(s_{E_{4,348}}(4)\right), sgn\left(s_{E_{4,348}}(5.7)\right)\right] = \left[4.0752, 4.0754, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{349}, a_{350}, sgn\left(s_{E_{4,349}}(4)\right), sgn\left(s_{E_{4,349}}(5.7)\right)\right] = \left[4.0754, 4.0755, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{350}, a_{351}, sgn\left(s_{E_{4,350}}(4)\right), sgn\left(s_{E_{4,350}}(5.7)\right)\right] = \left[4.0755, 4.0756, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{351}, a_{352}, sgn\left(s_{E_{4,351}}(4)\right), sgn\left(s_{E_{4,351}}(5.7)\right)\right] = \left[4.0756, 4.0758, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{352}, a_{353}, sgn\left(s_{E_{4,352}}(4)\right), sgn\left(s_{E_{4,352}}(5.7)\right)\right] = \left[4.0758, 4.0760, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{353}, a_{354}, sgn\left(s_{E_{4,353}}(4)\right), sgn\left(s_{E_{4,353}}(5.7)\right)\right] = \left[4.0760, 4.0761, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{354}, a_{355}, sgn\left(s_{E_{4,354}}(4)\right), sgn\left(s_{E_{4,354}}(5.7)\right)\right] = \left[4.0761, 4.0762, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{355}, a_{356}, sgn\left(s_{E_{4,355}}(4)\right), sgn\left(s_{E_{4,355}}(5.7)\right)\right] = \left[4.0762, 4.0764, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{356}, a_{357}, sgn\left(s_{E_{4,356}}(4)\right), sgn\left(s_{E_{4,356}}(5.7)\right)\right] = \left[4.0764, 4.0766, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{357}, a_{358}, sgn\left(s_{E_{4,357}}(4)\right), sgn\left(s_{E_{4,357}}(5.7)\right)\right] = \left[4.0766, 4.0767, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{358}, a_{359}, sgn\left(s_{E_{4,358}}(4)\right), sgn\left(s_{E_{4,358}}(5.7)\right)\right] = \left[4.0767, 4.0768, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{359}, a_{360}, sgn\left(s_{E_{4,359}}(4)\right), sgn\left(s_{E_{4,359}}(5.7)\right)\right] = \left[4.0768, 4.0770, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{360}, a_{361}, sgn\left(s_{E_{4,360}}(4)\right), sgn\left(s_{E_{4,360}}(5.7)\right)\right] = \left[4.0770, 4.0772, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{361}, a_{362}, sgn\left(s_{E_{4,361}}(4)\right), sgn\left(s_{E_{4,361}}(5.7)\right)\right] = \left[4.0772, 4.0773, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{362}, a_{363}, sgn\left(s_{E_{4,362}}(4)\right), sgn\left(s_{E_{4,362}}(5.7)\right)\right] = \left[4.0773, 4.0774, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{363}, a_{364}, sgn\left(s_{E_{4,363}}(4)\right), sgn\left(s_{E_{4,363}}(5.7)\right)\right] = \left[4.0774, 4.0776, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{364}, a_{365}, sgn\left(s_{E_{4,364}}(4)\right), sgn\left(s_{E_{4,364}}(5.7)\right)\right] = \left[4.0776, 4.0778, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{365}, a_{366}, sgn\left(s_{E_{4,365}}(4)\right), sgn\left(s_{E_{4,365}}(5.7)\right)\right] = \left[4.0778, 4.0779, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{366}, a_{367}, sgn\left(s_{E_{4,366}}(4)\right), sgn\left(s_{E_{4,366}}(5.7)\right)\right] = \left[4.0779, 4.0780, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{367}, a_{368}, sgn\left(s_{E_{4,367}}(4)\right), sgn\left(s_{E_{4,367}}(5.7)\right)\right] = \left[4.0780, 4.0782, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{368}, a_{369}, sgn\left(s_{E_{4,368}}(4)\right), sgn\left(s_{E_{4,368}}(5.7)\right)\right] = \left[4.0782, 4.0784, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{369}, a_{370}, sgn\left(s_{E_{4,369}}(4)\right), sgn\left(s_{E_{4,369}}(5.7)\right)\right] = \left[4.0784, 4.0785, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{370}, a_{371}, sgn\left(s_{E_{4,370}}(4)\right), sgn\left(s_{E_{4,370}}(5.7)\right)\right] = \left[4.0785, 4.0786, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{371}, a_{372}, sgn\left(s_{E_{4,371}}(4)\right), sgn\left(s_{E_{4,371}}(5.7)\right)\right] = \left[4.0786, 4.0788, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{372}, a_{373}, sgn\left(s_{E_{4,372}}(4)\right), sgn\left(s_{E_{4,372}}(5.7)\right)\right] = \left[4.0788, 4.0790, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{373}, a_{374}, sgn\left(s_{E_{4,373}}(4)\right), sgn\left(s_{E_{4,373}}(5.7)\right)\right] = \left[4.0790, 4.0791, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{374}, a_{375}, sgn\left(s_{E_{4,374}}(4)\right), sgn\left(s_{E_{4,374}}(5.7)\right)\right] = \left[4.0791, 4.0792, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{375}, a_{376}, sgn\left(s_{E_{4,375}}(4)\right), sgn\left(s_{E_{4,375}}(5.7)\right)\right] = \left[4.0792, 4.0794, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{376}, a_{377}, sgn\left(s_{E_{4,376}}(4)\right), sgn\left(s_{E_{4,376}}(5.7)\right)\right] = \left[4.0794, 4.0796, \begin{bmatrix} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}, \begin{bmatrix} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{bmatrix}\right]$$

$$\left[a_{377}, a_{378}, sgn\left(s_{E_{4,377}}(4)\right), sgn\left(s_{E_{4,377}}(5.7)\right)\right] = \left[4.0796, 4.0797, \left[\begin{array}{cccccccc} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{array}\right], \left[\begin{array}{cccccccc} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{array}\right]\right]$$

$$\left[a_{378}, a_{379}, sgn\left(s_{E_{4,378}}(4)\right), sgn\left(s_{E_{4,378}}(5.7)\right)\right] = \left[4.0797, 4.0798, \left[\begin{array}{cccccccc} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{array}\right], \left[\begin{array}{cccccccc} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{array}\right]\right]$$

$$\left[a_{379}, a_{380}, sgn\left(s_{E_{4,379}}(4)\right), sgn\left(s_{E_{4,379}}(5.7)\right)\right] = \left[4.0798, 4.0800, \left[\begin{array}{cccccccc} -1 & -1 & 1 & 1 & -1 & -1 & 1 & -1 \end{array}\right], \left[\begin{array}{cccccccc} -1 & 1 & 1 & 1 & -1 & -1 & 1 & -1 \end{array}\right]\right] \quad \textbf{(1)}$$

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