Rational solutions to the Johnson equation of order N depending on 2N − 2 parameters

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Rational solutions to the Johnson equation of order N depending on $2N-2$ parameters.

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Abstract

We construct rational solutions of order N depending on $2N-2$ parameters. They can be written as a quotient of 2 polynomials of degree $2N(N+1)$ in x, t and $4N(N+1)$ in y depending on $2N-2$ parameters. We explicitly construct the expressions of the rational solutions of order 4 depending on 6 real parameters and we study the patterns of their modulus in the plane (x, y) and their evolution according to time and parameters a_1, a_2, a_3, b_1, b_2, b_3.

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1 Introduction

Johnson introduced a new equation in a paper written in 1980, [1] to describe waves surfaces in shallow incompressible fluids [2, 3]. This equation was later derived for internal waves in a stratified medium [4]. The Johnson equation is a dissipative equation and there is no soliton-like solution with a linear front localized along straight lines in the (x, y) plane. We consider the Johnson equation (J) in the following normalization

$$(u_t + 6uu_x + u_{xxx} + \frac{u}{2t})_x - 3\frac{u_{yy}}{t^2} = 0, \tag{1}$$

where as usual, subscripts x, y and t denote partial derivatives.
Johnson constructed the first solutions in 1980 [1]. Golinko, Dryuma, and Stepanyants found other types of solutions in 1984 [5]. A new approach to solve this equation was given in 1986 [6] by giving a connection between solutions of the Kadomtsev-Petviashvili (KP) [9] and solutions of the Johnson equation. Another types of solutions were obtained by using the Darboux transformation [7]. More recently, in 2013, extension to the elliptic case has been considered [8].
In the following, we recall that the solutions can be expressed in terms of Fredholm determinants of order $2N$ depending on $2N-1$ parameters. They can also be given in terms of wronskians of order $2N$ with $2N-1$ parameters. These representations allow to obtain an infinite hierarchy of solutions to the Johnson equation, depending on $2N-1$ real parameters. We use these results to build rational solutions to the equation, making go a parameter towards 0.
Here we construct rational solutions of order N depending on $2N-2$ parameters without the presence of a limit.
That provides an effective method to build an infinite hierarchy of rational solutions of order N depending on $2N-2$ real parameters. We present here only the explicit rational solutions of order 4, depending on 6 real parameters, and the representations of their modulus in the plane of the coordinates (x, y) according to the real parameters a_1, b_1, a_2, b_2, a_3, b_3 and time t.

2 Rational solutions to the Johnson equation of order N depending on $2N-2$ parameters

2.1 Families of rational solutions of order N depending on $2N-2$ parameters

We need to define some notations. First of all, we define real numbers λ_j such that $-1<\lambda_\nu<1$, $\nu=1,\dots,2N$ which depend on a parameter ϵ which will be intended to tend towards 0; they can be written as

$$\lambda_j = 1-2\epsilon^2 j^2, \quad \lambda_{N+j}=-\lambda_j, \quad 1\le j\le N, \tag{2}$$

The terms $\kappa_\nu, \delta_\nu, \gamma_\nu$ and $x_{r,\nu}$ are functions of λ_ν, $1\le\nu\le 2N$; they are defined by the formulas :

$$\begin{array}{l}
\kappa_j = 2\sqrt{1-\lambda_j^2}, \quad \delta_j=\kappa_j\lambda_j, \quad \gamma_j=\sqrt{\frac{1-\lambda_j}{1+\lambda_j}};\\
x_{r,j}=(r-1)\ln\frac{\gamma_j-i}{\gamma_j+i}, \quad r=1,3, \quad \tau_j=-12i\lambda_j^2\sqrt{1-\lambda_j^2}-4i(1-\lambda_j^2)\sqrt{1-\lambda_j^2},\\
\kappa_{N+j}=\kappa_j, \quad \delta_{N+j}=-\delta_j, \quad \gamma_{N+j}=\gamma_j^{-1},\\
x_{r,N+j}=-x_{r,j},, \quad \tau_{N+j}=\tau_j \quad j=1,\dots,N.
\end{array} \tag{3}$$

e_ν $1\le\nu\le 2N$ are defined in the following way :

$$\begin{array}{l}
e_j = 2i\left(\sum_{k=1}^{1/2\,M-1} a_k (je)^{2\,k+1} - i\sum_{k=1}^{1/2\,M-1} b_K (je)^{2\,k+1}\right),\\
e_{N+j} = 2i\left(\sum_{k=1}^{1/2\,M-1} a_k (je)^{2\,k+1} + i\sum_{k=1}^{1/2\,M-1} b_k (je)^{2\,k+1}\right), \quad 1\le j\le N,\\
a_k, b_k\in\mathbf{R}, \quad 1\le k\le N.
\end{array} \tag{4}$$

ϵ_ν, $1\le\nu\le 2N$ are real numbers defined by :

$$\epsilon_j=1, \quad \epsilon_{N+j}=0 \quad 1\le j\le N. \tag{5}$$

Let I be the unit matrix and $D_r=(d_{jk})_{1\le j,k\le 2N}$ the matrix defined by :

$$d_{\nu\mu}=(-1)^{\epsilon_\nu}\prod_{\eta\neq\mu}\left(\frac{\gamma_\eta+\gamma_\nu}{\gamma_\eta-\gamma_\mu}\right)\exp(\kappa_\nu x+(\frac{\kappa_\nu y}{12}-2\delta_\nu)yt+4i\tau_\nu t+x_{r,\nu}+e_\nu). \tag{6}$$

Then we recall the following result[1] :

Theorem 2.1 *The function v defined by*

$$v(x,y,t)=-2\,\frac{|n(x,y,t)|^2}{d(x,y,t)^2} \tag{7}$$

where

$$n(x,y,t)=\det(I+D_3(x,y,t)), \tag{8}$$

$$d(x,y,t)=\det(I+D_1(x,y,t)), \tag{9}$$

and $D_r=(d_{jk})_{1\le j,k\le 2N}$ the matrix

$$d_{\nu\mu}=(-1)^{\epsilon_\nu}\prod_{\eta\neq\mu}\left(\frac{\gamma_\eta+\gamma_\nu}{\gamma_\eta-\gamma_\mu}\right)\exp(\kappa_\nu x+(\frac{\kappa_\nu y}{12}-2\delta_\nu)yt+4i\tau_\nu t+x_{r,\nu}+e_\nu). \tag{10}$$

is a solution to the Johnson equation (1), depending on $2N-1$ parameters a_k, b_h, $1\le k\le N-1$ and ϵ.

[1] The proof of this result is submitted to a review

We recall another result on the solutions to the Johnson equation obtained recently by the author in terms of wronskians. We need to define the following notations :

$$\phi_{r,\nu} = \sin\Theta_{r,\nu}, \quad 1 \leq \nu \leq N, \quad \phi_{r,\nu} = \cos\Theta_{r,\nu}, \quad N+1 \leq \nu \leq 2N, \quad r = 1,3, \tag{11}$$

with the arguments

$$\Theta_{r,\nu} = \tfrac{-i\kappa_\nu x}{2} + i(\tfrac{-\kappa_\nu y}{24} + \delta_\nu)yt - i\tfrac{x_{r,\nu}}{2} + 2\tau_\nu t + \gamma_\nu w - i\tfrac{e_\nu}{2}, \quad 1 \leq \nu \leq 2N. \tag{12}$$

We denote $W_r(w)$ the wronskian of the functions $\phi_{r,1}, \dots, \phi_{r,2N}$ defined by

$$W_r(w) = \det[(\partial_w^{\mu-1}\phi_{r,\nu})_{\nu,\,\mu\in[1,\dots,2N]}]. \tag{13}$$

We consider the matrix $D_r = (d_{\nu\mu})_{\nu,\,\mu\in[1,\dots,2N]}$ defined in (10).
Then we have the following statement :

Theorem 2.2 *The function v defined by*

$$v(x,y,t) = -2\frac{|W_3(\phi_{3,1},\dots,\phi_{3,2N})(0)|^2}{(W_1(\phi_{1,1},\dots,\phi_{1,2N})(0))^2}$$

is a solution to the Johnson equation depending on $2N-1$ real parameters a_k, b_k and ϵ, with ϕ_ν^r defined in (11)

$$\begin{array}{l}\phi_{r,\nu} = \sin(\frac{-i\kappa_\nu x}{2} + i(\frac{-\kappa_\nu y}{24} + \delta_\nu)yt - i\frac{x_{r,\nu}}{2} + 2\tau_\nu t + \gamma_\nu w - i\frac{e_\nu}{2}), \quad 1 \leq \nu \leq N,\\ \phi_{r,\nu} = \cos(\frac{-i\kappa_\nu x}{2} + i(\frac{-\kappa_\nu y}{24} + \delta_\nu)yt - i\frac{x_{r,\nu}}{2} + 2\tau_\nu t + \gamma_\nu w - i\frac{e_\nu}{2}), \quad N+1 \leq \nu \leq 2N, \quad r = 1,3,\end{array}$$

κ_ν, δ_ν, $x_{r,\nu}$, γ_ν, e_ν being defined in(3), (2) and (4).

From those two preceding results, we can construct rational solutions to the Johnson equation as a quotient of two determinants.
We use the following notations :

$$\begin{aligned} X_\nu &= \frac{-i\kappa_\nu x}{2} + i(\frac{-\kappa_\nu y}{24} + \delta_\nu)yt - i\frac{x_{3,\nu}}{2} + 2\tau_\nu t + \gamma_\nu w - i\frac{e_\nu}{2},\\ Y_\nu &= \frac{-i\kappa_\nu x}{2} + i(\frac{-\kappa_\nu y}{24} + \delta_\nu)yt - i\frac{x_{1,\nu}}{2} + 2\tau_\nu t + \gamma_\nu w - i\frac{e_\nu}{2},\end{aligned}$$

for $1 \leq \nu \leq 2N$, with κ_ν, δ_ν, $x_{r,\nu}$ defined in (3) and parameters e_ν defined by (4).
We define the following functions :

$$\begin{array}{ll}\varphi_{4j+1,k} = \gamma_k^{4j-1}\sin X_k, & \varphi_{4j+2,k} = \gamma_k^{4j}\cos X_k,\\ \varphi_{4j+3,k} = -\gamma_k^{4j+1}\sin X_k, & \varphi_{4j+4,k} = -\gamma_k^{4j+2}\cos X_k,\end{array} \tag{14}$$

for $1 \leq k \leq N$, and

$$\begin{array}{ll}\varphi_{4j+1,N+k} = \gamma_k^{2N-4j-2}\cos X_{N+k}, & \varphi_{4j+2,N+k} = -\gamma_k^{2N-4j-3}\sin X_{N+k},\\ \varphi_{4j+3,N+k} = -\gamma_k^{2N-4j-4}\cos X_{N+k}, & \varphi_{4j+4,N+k} = \gamma_k^{2N-4j-5}\sin X_{N+k},\end{array} \tag{15}$$

for $1 \leq k \leq N$.
We define the functions $\psi_{j,k}$ for $1 \leq j \leq 2N$, $1 \leq k \leq 2N$ in the same way, the term X_k is only replaced by Y_k.

$$\begin{array}{ll}\psi_{4j+1,k} = \gamma_k^{4j-1}\sin Y_k, & \psi_{4j+2,k} = \gamma_k^{4j}\cos Y_k,\\ \psi_{4j+3,k} = -\gamma_k^{4j+1}\sin Y_k, & \psi_{4j+4,k} = -\gamma_k^{4j+2}\cos Y_k,\end{array} \tag{16}$$

for $1 \leq k \leq N$, and

$$\begin{array}{ll}\psi_{4j+1,N+k} = \gamma_k^{2N-4j-2}\cos Y_{N+k}, & \psi_{4j+2,N+k} = -\gamma_k^{2N-4j-3}\sin Y_{N+k},\\ \psi_{4j+3,N+k} = -\gamma_k^{2N-4j-4}\cos Y_{N+k}, & \psi_{4j+4,N+k} = \gamma_k^{2N-4j-5}\sin Y_{N+k},\end{array} \tag{17}$$

for $1 \le k \le N$.
The following ratio

$$q(x,t) := \frac{W_3(0)}{W_1(0)}$$

can be written as

$$q(x,t) = \frac{\Delta_3}{\Delta_1} = \frac{\det(\varphi_{j,k})_{j,\,k\in[1,2N]}}{\det(\psi_{j,k})_{j,\,k\in[1,2N]}}. \tag{18}$$

The terms λ_j depending on ϵ are defined by $\lambda_j = 1 - 2j\epsilon^2$. All the functions $\varphi_{j,k}$ and $\psi_{j,k}$ and their derivatives depend on ϵ. They can all be prolonged by continuity when $\epsilon = 0$.
We use the following expansions

$$\varphi_{j,k}(x,y,t,\epsilon) = \sum_{l=0}^{N-1} \frac{1}{(2l)!}\varphi_{j,1}[l]k^{2l}\epsilon^{2l} + O(\epsilon^{2N}), \quad \varphi_{j,1}[l] = \frac{\partial^{2l}\varphi_{j,1}}{\partial\epsilon^{2l}}(x,y,t,0),$$

$$\varphi_{j,1}[0] = \varphi_{j,1}(x,y,t,0), \quad 1 \le j \le 2N, \quad 1 \le k \le N, \quad 1 \le l \le N-1,$$

$$\varphi_{j,N+k}(x,y,t,\epsilon) = \sum_{l=0}^{N-1} \frac{1}{(2l)!}\varphi_{j,N+1}[l]k^{2l}\epsilon^{2l} + O(\epsilon^{2N}), \quad \varphi_{j,N+1}[l] = \frac{\partial^{2l}\varphi_{j,N+1}}{\partial\epsilon^{2l}}(x,y,t,0),$$

$$\varphi_{j,N+1}[0] = \varphi_{j,N+1}(x,y,t,0), \quad 1 \le j \le 2N, \quad 1 \le k \le N, \quad 1 \le l \le N-1.$$

We have the same expansions for the functions $\psi_{j,k}$.

$$\psi_{j,k}(x,y,t,\epsilon) = \sum_{l=0}^{N-1} \frac{1}{(2l)!}\psi_{j,1}[l]k^{2l}\epsilon^{2l} + O(\epsilon^{2N}), \quad \psi_{j,1}[l] = \frac{\partial^{2l}\psi_{j,1}}{\partial\epsilon^{2l}}(x,y,t,0),$$

$$\psi_{j,1}[0] = \psi_{j,1}(x,y,t,0), \quad 1 \le j \le 2N, \quad 1 \le k \le N, \quad 1 \le l \le N-1,$$

$$\psi_{j,N+k}(x,t,\epsilon) = \sum_{l=0}^{N-1} \frac{1}{(2l)!}\psi_{j,N+1}[l]k^{2l}\epsilon^{2l} + O(\epsilon^{2N}), \quad \psi_{j,N+1}[l] = \frac{\partial^{2l}\psi_{j,N+1}}{\partial\epsilon^{2l}}(x,y,t,0),$$

$$\psi_{j,N+1}[0] = \psi_{j,N+1}(x,t,0), \quad 1 \le j \le 2N, \quad 1 \le k \le N, \quad N+1 \le k \le 2N..$$

Then we get the following result :

Theorem 2.3 *The function v defined by*

$$v(x,y,t) = -2\frac{|\det((n_{jk})_{j,k\in[1,2N]})|^2}{\det((d_{jk})_{j,k\in[1,2N]})^2} \tag{19}$$

is a rational solution to the Johnson equation (1), where

$$\begin{array}{l}
n_{j1} = \varphi_{j,1}(x,y,t,0),\ 1 \le j \le 2N \quad n_{jk} = \frac{\partial^{2k-2}\varphi_{j,1}}{\partial\epsilon^{2k-2}}(x,y,t,0),\\
n_{jN+1} = \varphi_{j,N+1}(x,y,t,0),\ 1 \le j \le 2N \quad n_{jN+k} = \frac{\partial^{2k-2}\varphi_{j,N+1}}{\partial\epsilon^{2k-2}}(x,y,t,0),\\
d_{j1} = \psi_{j,1}(x,y,t,0),\ 1 \le j \le 2N \quad d_{jk} = \frac{\partial^{2k-2}\psi_{j,1}}{\partial\epsilon^{2k-2}}(x,y,t,0),\\
d_{jN+1} = \psi_{j,N+1}(x,y,t,0),\ 1 \le j \le 2N \quad d_{jN+k} = \frac{\partial^{2k-2}\psi_{j,N+1}}{\partial\epsilon^{2k-2}}(x,y,t,0),\\
2 \le k \le N,\ 1 \le j \le 2N
\end{array} \tag{20}$$

The functions φ and ψ are defined in (14),(15), (16), (17).

Proof : In each column k (and $N+k$) of the determinants appearing in $q(x,t)$, we can successively eliminate the powers of ϵ strictly inferior to $2(k-1)$; then each common term in the numerator and denominator is factorized and simplified; in the end, we take the limit when ϵ goes to 0.
First of all, the components j of the columns 1 and $N+1$ are respectively equal by definition to

$\varphi_{j1}[0]+0(\epsilon)$ for C_1, $\varphi_{jN+1}[0]+0(\epsilon)$ for C_{N+1} of Δ_3, and $\psi_{j1}[0]+0(\epsilon)$ for C'_1, $\psi_{jN+1}[0]+0(\epsilon)$ for C'_{N+1} of Δ_1.
So we can replace the columns C_k by $C_k - C_1$ and C_{N+k} by $C_{N+k} - C_{N+1}$ for $2 \leq k \leq N$, for Δ_3; the same changes for Δ_1 are made. Each component j of the column C_k of Δ_3 can be rewritten as $\sum_{l=1}^{N-1} \frac{1}{(2l)!}\varphi_{j,1}[l](k^{2l}-1)\epsilon^{2l}$ and the column C_{N+k} replaced by $\sum_{l=1}^{N-1} \frac{1}{(2l)!}\varphi_{j,N+1}[l](k^{2l}-1)\epsilon^{2l}$ for $2 \leq k \leq N$. For Δ_1, we make the same reductions, each component j of the column C'_k can be rewritten as $\sum_{l=1}^{N-1} \frac{1}{(2l)!}\psi_{j,1}[l](k^{2l}-1)\epsilon^{2l}$ and the column C'_{N+k} replaced by $\sum_{l=1}^{N-1} \frac{1}{(2l)!}\psi_{j,N+1}[l](k^{2l}-1)\epsilon^{2l}$ for $2 \leq k \leq N$.
The term $\frac{k^2-1}{2}\epsilon^2$ for $2 \leq k \leq N$ can be factorized in Δ_3 and Δ_1 in each column k and $N+k$, and so those common terms can be simplified in the numerator and denominator.
If we restrict the developments at order 1 in columns 2 and $N+2$, we respectively get $\varphi_{j1}[1]+0(\epsilon)$ for the component j of C_2, $\varphi_{jN+1}[1]+0(\epsilon)$ for the component j of C_{N+2} of Δ_3, and $\psi_{j1}[1]+0(\epsilon)$ for the component j of C'_2, $\psi_{jN+1}[1]+0(\epsilon)$ for the component j of C'_{N+2} of Δ_1. We can extend this algorithm up to the columns C_N, C_{2N} of Δ_3 and C'_N, C'_{2N} of Δ_1.
Then we take the limit when ϵ tends to 0, and $q(x,y,t)$ can be replaced by $Q(x,y,t)$ defined by :

$$Q(x,y,t) := \frac{\left|\begin{vmatrix} \varphi_{1,1}[0] & \ldots & \varphi_{1,1}[N-1] & \varphi_{1,N+1}[0] & \ldots & \varphi_{1,N+1}[N-1] \\ \varphi_{2,1}[0] & \ldots & \varphi_{2,1}[N-1] & \varphi_{2,N+1}[0] & \ldots & \varphi_{2,N+1}[N-1] \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ \varphi_{2N,1}[0] & \ldots & \varphi_{2N,1}[N-1] & \varphi_{2N,N+1}[0] & \ldots & \varphi_{2N,N+1}[N-1] \end{vmatrix}\right|^2}{\left(\begin{vmatrix} \psi_{1,1}[0] & \ldots & \psi_{1,1}[N-1] & \psi_{1,N+1}[0] & \ldots & \psi_{1,N+1}[N-1] \\ \psi_{2,1}[0] & \ldots & \psi_{2,1}[N-1] & \psi_{2,N+1}[0] & \ldots & \psi_{2,N+1}[N-1] \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ \psi_{2N,1}[0] & \ldots & \psi_{2N,1}[N-1] & \psi_{2N,N+1}[0] & \ldots & \psi_{2N,N+1}[N-1] \end{vmatrix}\right)^2} \tag{21}$$

So the solution to the Johnson equation takes the form :

$$v(x,y,t) = -2Q(x,y,t)$$

and we get the result. $\square$

3 Explicit expression of rational solutions of order 4 depending on 6 parameters

We explicitly construct rational solutions to the Johnson equation of order 4 depending on 6 parameters.
Because of the length of the expression, we only give the expression without parameters in the appendix.

We give patterns of the modulus of the solutions in the plane (x,y) of coordinates in function of the parameters a_1, a_2, a_3, b_1, b_2, b_3, and time t.

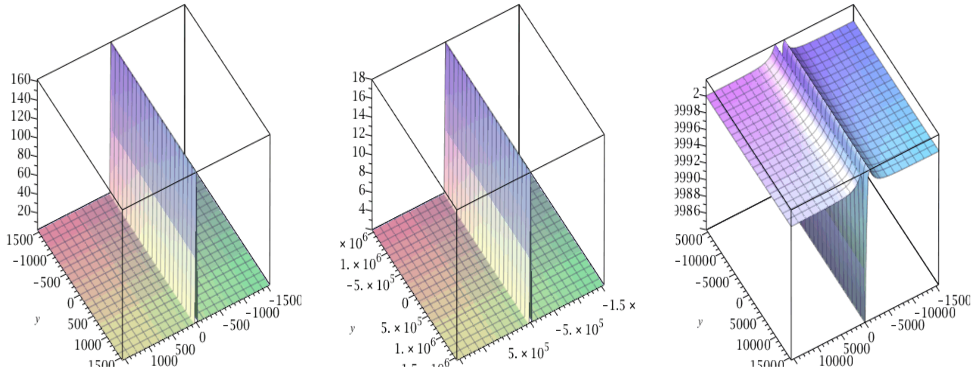

Figure 1. Solution of order 4 to (1), on the left for $t = 0$; in the center for $t = 0$, $a_2 = 10^4$; on the right for $t = 0$, $a_1 = 10^3$; all other parameters not mentioned equal to 0.

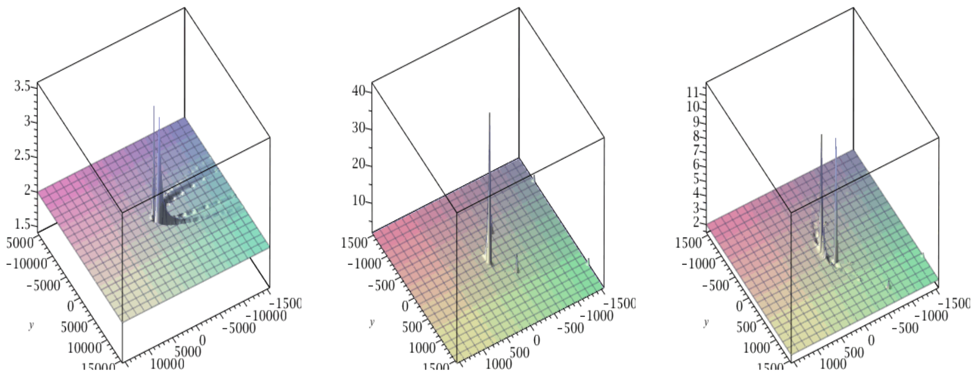

Figure 2. Solution of order 4 to (1), on the left for $t = 0,01$, $a_1 = 10^2$; in the center for $t = 0,01$, $a_2 = 10$; on the right for $t = 0,01$, $b_1 = 10$; all other parameters not mentioned equal to 0.

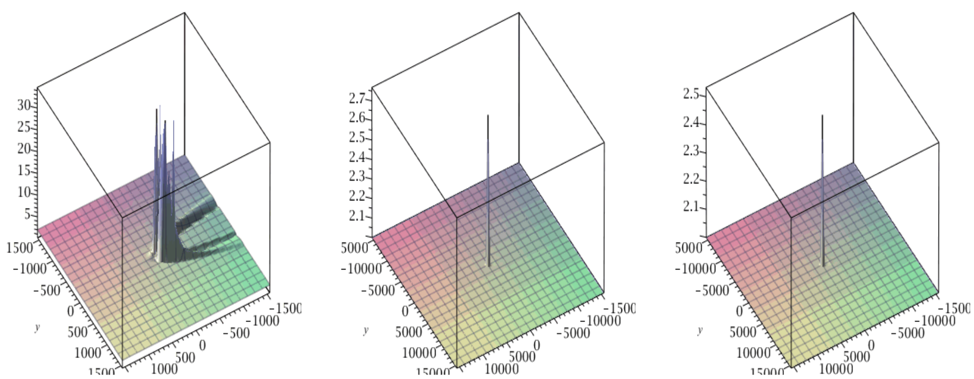

Figure 3. Solution of order 4 to (1), on the left for $t = 0,1$, $a_1 = 10^2$; in the center for $t = 0,1$, $b_1 = 10$; on the right for $t = 0,1$, $a_2 = 10^2$; all the other parameters to equal to 0.

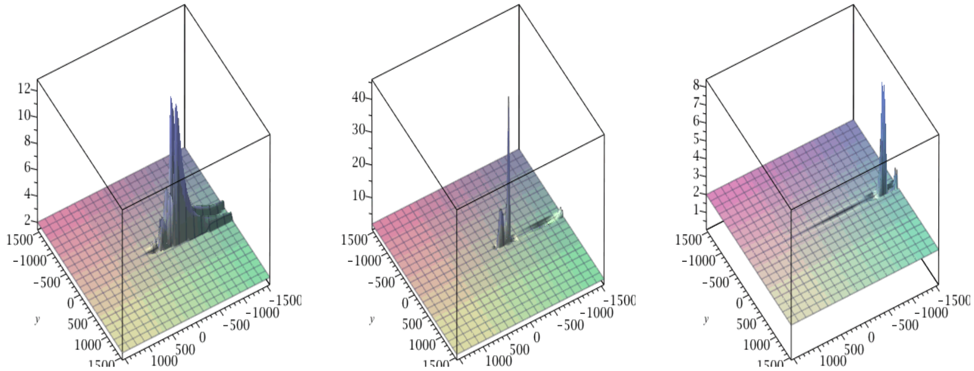

Figure 4. Solution of order 4 to (1), on the left for $t = 1$, $a_2 = 10^2$; in the center for $t = 10$, $a_1 = 10^2$; on the right for $t = 10$, $a_1 = 10^3$; all the other parameters to equal to 0.

In these constructions, we note that the initial rectilinear structure becomes deformed very quickly as time t increases. The heights of the peaks also decrease very quickly according to time t and of the various parameters. Because of the structure of the polynomials, one notices that the modulus of these solutions tend towards value 2 when time t and variables x and y tend towards the infinite.

4 Conclusion

From the previous results giving the solutions to the Johnson equation in terms of Fredholm determinants and wronskians, we succeed in obtaining rational solutions to the Johnson equation depending on $2N-2$ real parameters. These solutions can be expressed in terms of a ratio of two polynomials of degree $2N(N+1)$ in x, t and $4N(N+1)$ in y. That gives a new approach to find explicit solutions for higher orders and try to describe the structure of those rational solutions.
In the (x, y) plane of coordinates, different structures appear.
It will be relevant to go on this study for higher orders to try to understand the structure of those rational solutions.

References

[1] R.E. Johnson, Water waves and Kortewegde Vries equations, J. Fluid Mech., V. 97, N. 4, 701719, 1980

[2] R.E. Johnson, A Modern Introduction to the Mathematical Theory of Water Waves, Cambridge University Press, Cambridge, 1997

[3] M. J. Ablowitz, Nonlinear Dispersive Waves : Asymptotic Analysis and Solitons, Cambridge University Press, Cambridge, 2011

[4] V.D. Lipovskii, On the nonlinear internal wave theory in fluid of finite depth, Izv. Akad. Nauka., V. 21, N. 8, 864871, 1985

[5] V.I. Golinko, V.S. Dryuma, Yu.A. Stepanyants, Nonlinear quasicylindrical waves: Exact solutions of the cylindrical Kadomtsev- Petviashvili equation, in Proc. 2nd Int. Workshop on Nonlinear and Turbulent Processes in Physics, Kiev, Harwood Acad., Gordon and Breach, 13531360, 1984

[6] V.D. Lipovskii, V.B. Matveev, A.O. Smirnov, connection between the Kadomtsev-Petvishvili and Johnson equation, Zap. Nau. Sem., V. 150, 7075, 1986

[7] C. Klein, V.B. Matveev, A.O. Smirnov, Cylindrical Kadomtsev-Petviashvili equation: Old and new results, Theor. Math. Phys., V. 152, N. 2, 1132-1145, 2007

[8] K. R. Khusnutdinova, C. Klein, V.B. Matveev, A.O. Smirnov, On the integrable elliptic cylindrical K-P equation Chaos, V. 23, 013126-1-15, 2013

[9] B.B. Kadomtsev, V.I. Petviashvili, On the stability of solitary waves in weakly dispersing media, Sov. Phys. Dokl., V. 15, N. 6, 539-541, 1970

[10] M.J. Ablowitz, H. Segur On the evolution of packets of water waves, J. Fluid Mech., V. 92, 691-715, 1979

[11] D.E. Pelinovsky, Y.A. Stepanyants, Y.A. Kivshar, Self-focusing of plane dark solitons in nonlinear defocusing media, Phys. Rev. E, V. 51, 5016-5026, 1995

[12] P. Gaillard, V.B. Matveev, Wronskian addition formula and its applications, Max-Planck-Institut für Mathematik, MPI 02-31, V. **161**, 2002

[13] P. Gaillard, A new family of deformations of Darboux-Pöschl-Teller potentials, Lett. Math. Phys., V. **68**, 77-90, 2004

[14] P. Gaillard, V.B. Matveev, New formulas for the eigenfunctions of the two-particle Calogero-Moser system, Lett. Math. Phys., V. **89**, 1-12, 2009

[15] P. Gaillard, V.B. Matveev, Wronskian and Casorai determinant representations for Darboux-Pöschl-Teller potentials and their difference extensions, RIMS Kyoto, N. 1653, 1-19, 2009

[16] P. Gaillard, V.B. Matveev, Wronskian and Casorai determinant representations for Darboux-Pöschl-Teller potentials and their difference extensions, J. Phys A : Math. Theor., V. **42**, 1-16, 2009

[17] P. Gaillard, From finite-gap solutions of KdV in terms of theta functions to solitons and positons, halshs-00466159, 2010

[18] P. Gaillard, Families of quasi-rational solutions of the NLS equation and multi-rogue waves, J. Phys. A : Meth. Theor., V. **44**, 1-15, 2011

[19] P. Gaillard, Wronskian representation of solutions of the NLS equation and higher Peregrine breathers, J. Math. Sciences : Adv. Appl., V. **13**, N. 2, 71-153, 2012

[20] P. Gaillard, Degenerate determinant representation of solution of the NLS equation, higher Peregrine breathers and multi-rogue waves, J. Math. Phys., V. **54**, 013504-1-32, 2013

[21] P. Gaillard, Wronskian representation of solutions of NLS equation and seventh order rogue waves, J. Mod. Phys., V. **4**, N. 4, 246-266, 2013

[22] P. Gaillard, V.B. Matveev, Wronskian addition formula and Darboux-Pöschl-Teller potentials, J. Math., V. **2013**, ID 645752, 1-10, 2013

[23] P. Gaillard, Two parameters deformations of ninth Peregrine breather solution of the NLS equation and multi rogue waves, J. Math., V. **2013**, 1-111, 2013

[24] P. Gaillard, Two-parameters determinant representation of seventh order rogue waves solutions of the NLS equation, J. Theor. Appl. Phys., V. **7**, N. **45**, 1-6, 2013

[25] P. Gaillard, Six-parameters deformations of fourth order Peregrine breather solutions of the NLS equation, J. Math. Phys., V. **54**, 073519-1-22, 2013

[26] P. Gaillard, Deformations of third order Peregrine breather solutions of the NLS equation with four parameters, Phys. Rev. E, V. **88**, 042903-1-9, 2013

[27] P. Gaillard, Ten parameters deformations of the sixth order Peregrine breather solutions of the NLS equation, Phys. Scripta, V. **89**, 015004-1-7, 2014

[28] P. Gaillard, The fifth order Peregrine breather and its eight-parameters deformations solutions of the NLS equation, Commun. Theor. Phys., V. **61**, 365-369, 2014

[29] P. Gaillard, Higher order Peregrine breathers, their deformations and multi-rogue waves, J. Of Phys. : Conf. Ser., V. **482**, 012016-1-7, 2014

[30] P. Gaillard, M. Gastineau, Eighteen parameter deformations of the Peregrine breather of order ten solutions of the NLS equation, Int. J. Mod. Phys. C, V. **26**, N. 2, 1550016-1-14, 2014

[31] P. Gaillard, Two parameters wronskian representation of solutions of nonlinear Schrödinger equation, eight Peregrine breather and multi-rogue waves, J. Math. Phys., V. **5**, 093506-1-12, 2014

[32] P. Gaillard, Hierarchy of solutions to the NLS equation and multi-rogue waves, J. Phys. : Conf. Ser., V. **574**, 012031-1-5, 2015

[33] P. Gaillard, Tenth Peregrine breather solution of the NLS, Ann. Phys., V. **355**, 293-298, 2015

[34] P. Gaillard, M. Gastineau, The Peregrine breather of order nine and its deformations with sixteen parameters solutions of the NLS equation, Phys. Lett. A., V. **379**, 13091313, 2015

[35] P. Gaillard, Other 2N-2 parameters solutions to the NLS equation and 2N+1 highest amplitude of the modulus of the N-th order AP breather, J. Phys. A: Math. Theor., V. **48**, 145203-1-23, 2015

[36] P. Gaillard, Multi-parametric deformations of the Peregrine breather of order N solutions to the NLS equation and multi-rogue waves, Adv. Res., V. **4**, 346-364, 2015

[37] P. Gaillard, Higher order Peregrine breathers solutions to the NLS equation, Jour. Phys. : Conf. Ser., V. **633**, 012106-1-6, 2016

[38] P. Gaillard, M. Gastineau Patterns of deformations of Peregrine breather of order 3 and 4, solutions to the NLS equation with multi-parameters, Journal of Theoretical and Applied Physics, V. **10**,1-7, 2016

[39] P. Gaillard, M. Gastineau Twenty parameters families of solutions to the NLS equation and the eleventh Peregrine breather, Commun. Theor. Phys, V. **65**, 136-144, 2016

[40] P. Gaillard, Rational solutions to the KPI equation and multi rogue waves, Annals Of Physics, V. **367**, 1-5, 2016

[41] P. Gaillard, M. Gastineau Twenty two parameters deformations of the twelfth Peregrine breather solutions to the NLS equation, Adv. Res., V. , 1-11, 2016

[42] P. Gaillard, Towards a classification of the quasi rational solutions to the NLS equation, Theor. And Math. Phys., V. **189**, 1440-1449, 2016

[43] P. Gaillard, Fredholm and Wronskian representations of solutions to the KPI equation and multi-rogue waves, Jour. of Math. Phys., V. **57**, 063505-1-13, doi: 10.1063/1.4953383, 2016

[44] P. Gaillard, M. Gastineau Families of deformations of the thirteenth Peregrine breather solutions to the NLS equation depending on twenty four parameters, Jour. Of Bas. And Appl. Res. Int., V. **21**, N. 3, 130-139, 2017

[45] P. Gaillard, From Fredholm and Wronskian representations to rational solutions to the KPI equation depending on $2N2$ parameters, Int. Jour. of Appl. Sci. And Math., V. **4**, N. 3, 60-70, 2017

[46] P. Gaillard, Families of Rational Solutions of Order 5 to the KPI Equation Depending on 8 Parameters, New Hor. in Math. Phys., V. 1, N. 1, 26-31, 2017

[47] P. Gaillard, 6-th order rational solutions to the KPI Equation depending on 10 parameters, Jour. Of Bas. And Appl. Res. Int., V. **21**, N. 2, 92-98, 2017

[48] P. Gaillard, N-Order rational solutions to the Johnson equation depending on $2N-2$ parameters, Int. Jour. of Adv. Res. in Phys. Sci., V. **4**, N. 9, 19-37, 2017

[49] P. Gaillard, Families of rational solutions to the KPI equation of order 7 depending on 12 parameters, Int. Jour. of Adv. Res. in Phys. Sci., V. **4**, N. 11, 24-30, 2017

[50] P. Gaillard, Rational solutions to the Johnson equation and rogue waves, Int. Jour. of Inn. In Sci. and Math., V. **6**, N. 1, 14-19, 2018

[51] P. Gaillard, Multiparametric families of solutions of the KPI equation, the structure of their rational representations and multi-rogue waves, Theo. And Mat. Phys., V. **196**, N. 2, 1174-1199, 2018

[52] P. Gaillard, The Johnson Equation, Fredholm and Wronskian representations of solutions and the case of order three, Adv. In Math. Phys., V. **2018**, 1-18, 2018

Appendix : Because of the length of the complete expression, we only give in this appendix the explicit expression of the rational solution of order 4 to the Johnson equation without parameters. They can be written as
$v(x,y,t) = -2\frac{|n(x,y,t)|^2}{(d(x,y,t))^2}$ with $n(x,y,t) = A(x,y,t)+iB(x,y,t)$, $d(x,y,t) = C(x,y,t)+iD(x,y,t)$
with
$A_(x,y,t) = \sum_{k=0}^{20} a_k(y,t)x^k$, $B_(x,y,t) = \sum_{k=0}^{20} b_k(y,t)x^k$, $C_(x,y,t) = \sum_{k=0}^{20} c_k(y,t)x^k$, $D_(x,y,t) = 0$.

$\mathbf{a}_{20} = 3833759992447475122176,\quad \mathbf{a}_{19} = (6389599987412458536960\,y^2+1840204796374788058644480)t,\quad \mathbf{a}_{18} = (5058433323368196341760\,y^4+$
$2760307194562182087966720\,y^2 + 419566693573451677370941440)t^2 + 28753199943356063416320,\quad \mathbf{a}_{17} = (2529216661684098170880\,y^6 +$
$1955217596148212312309760\,y^4+563102667690685145945210880\,y^2+60417603874577041541415567360)t^3+(43129799915034095124480\,y^2+$
$17941996764654183571783680)t,\quad \mathbf{a}_{16} = (895764234346451435520\,y^8+868985598288094361026560\,y^6+354699474501240398303723520\,y^4+$
$72077141464407698680986992640\,y^2+6162595595206858237224387870720)t^4+(30550274939815817379840\,y^4+20242252760122668645089280\,y^2+$
$4786372675370823740534292480)t^2 - 161736749681377856716800,\quad \mathbf{a}_{15} = (238870462492387049472\,y^{10} + 271557999465029487820800\,y^8 +$
$139242162925692296437432320\,y^6+40101742922599381373980508160\,y^4+6486942731796692881288829337600\,y^2+473287341711886712618832988471296)t^5+$
$(13577899973251474391040\,y^6+10044451180212384820101120\,y^4+4306079223517004057228083200\,y^2+756809985376280836150363422720)t^3+$
$(-215648999575170475622400\,y^2-45545068710276004451450880)t,\quad \mathbf{a}_{14} = (49764679685913968640\,y^{12}+63363533208506880491520\,y^{10}+$
$38145911924852377465651200\,y^8+13808896791996409592068177920\,y^6+3163974518694955596510973132800\,y^4+435922551576737761622609331486720\,y^2+$
$28397240502713202757129979308277760)t^6+(4243093741641085747200\,y^8+2747527994587357170892800\,y^6+1531970492982011058821529600\,y^4+$
$556477930423735908934090752000\,y^2+81086784147458661016110366720000)t^4+(-134780624734481547264000\,y^4-72458063857257279809126400\,y^2-$
$3229559417637753042921062400)t^2 + 1186069497663437615923200,\quad \mathbf{a}_{13} = (8294113280985661440\,y^{14} + 11440637940424853422080\,y^{12} +$
$7737805584756487288258560\,y^{10}+3293353183912079028954071040\,y^8+948485716966678760338772459520\,y^6+184839709369548119511547584184320\,y^4+$
$22667972681990363604375685237309440\,y^2+1363067544130233732342239006797332480)t^7+(990055206382920007680\,y^{10}+382044832580703250022400\,y^8+$
$198588767608779211328716800\,y^6+143756798692798443141306777600\,y^4+49192649049458254349773622476800\,y^2+6320876997862697543527835306557440)t^5+$
$(-52414687396742823936000\,y^6-51324461898890573198131200\,y^4-8984799918299902696331673600\,y^2+417358447817801931700568064000)t^3+$
$(1383747747274010551910400\,y^2 + 398519351214915038950195200)t,\quad \mathbf{a}_{12} = (1123161173466808320\,y^{16} + 1634376848632121917440\,y^{14} +$
$1203285919851743406981120\,y^{12}+576801970063697457048453120\,y^{10}+195462873061337238013099376640\,y^8+47842262604963321877426895585280\,y^6+$
$8278254729452363179048963481272320\,y^4 + 932625161773317816865742478335016960\,y^2 + 53159634221079115561347321265095966720)t^8 +$
$(178759967819138334720\,y^{12} - 8075744428535190650880\,y^{10} - 39248117922681026563276800\,y^8 + 1648823497551810100545454080\,y^6 +$
$9283906805902660747383747379200\,y^4+3166849124689830209434838378741760\,y^2+374021549252840999472198806415605760)t^6+(-14195644503284514816000\,y^8-$
$21804509957045014757376000\,y^6-6831185242542533546449305600\,y^4-417358447817801931700568064000\,y^2+110683460361281072286990650572800)t^4+$
$(749530029773422382284800\,y^4+470977415072172318759321600\,y^2+72602979984971794368744652800)t^2-4953187958992196861952000,\quad \mathbf{a}_{11} =$
$(124795685940756480\,y^{18}+187272347239097303040\,y^{16}+146517077489138458951680\,y^{14}+76751875048798451945963520\,y^{12}+29343905682992370383144878080\,y^{10}+$
$8451044836701802670345724887040\,y^8+1833438966925691173883327482429440\,y^6+290302440061792555740071800854282240\,y^4+30776630338519487956569501785055559680\,y^2+$
$1701108295074531697963114280483070935040)t^9+(25537138259876904960\,y^{14}-16487978208259347578880\,y^{12}-23548870753608615937966080\,y^{10}-$
$8817341281829796982995025920\,y^8-761138147057354337664295239680\,y^6+437525208016358121040339512852480\,y^4+154008873221758058606199508524072960\,y^2+$
$17253565492806379612016235849197813760)t^7+(-2839128900656902963200\,y^{10}-6268796612650441742745600\,y^8-2644719330789890713033113600\,y^6-$
$423155092926382514085298176000\,y^4+16527394533584956495342495334400\,y^2+11875684217586863285380643920281600)t^5+(249843343257807460761600\,y^6+$
$255112766497426672661299200\,y^4+82167444414129755303549337600\,y^2+9121600742862404440611304243200)t^3+(-4953187958992196861952000\,y^2-$
$1462747164118381336146739200)t,\quad \mathbf{a}_{10} = (11439604544569344\,y^{20}+17340032151768268800\,y^{18}+14144570226764761006080\,y^{16}+7918844251066506946805760\,y^{14}+$
$3318042598263440768740884480\,y^{12}+1079072537972782120301972422656\,y^{10}+275211725270362831122443922309120\,y^8+54479329302934823452533159477903360\,y^6+$
$8071322172111728459198374242649374720\,y^4+820710142360519678841853380934814924800\,y^2+44909258989967636826226217004753072685056)t^{10}+$
$(2926130425610895360\,y^{16}-4142023680111799173120\,y^{14}-5552074294617943572480000\,y^{12}-2774875482533482493430988800\,y^{10}-713283621327627974199245537280\,y^8-$
$66272811660597455181323981291520\,y^6+15584231218868374978008283600650240\,y^4+5783190341388465874191981544577433600\,y^2+630920921939649503109674786593638973440)t^8+$
$(-433755804267026841600\,y^{12}-1299185384940598795960320\,y^{10}-624531483269670095762227200\,y^8-139312704109553329979680358400\,y^6-$
$9508816636115587343911275724800\,y^4+3613990271343910486981558979788800\,y^2+808546584414229807682547419751383040)t^6+(57255766163247543091200\,y^8+$
$83947363334623306815897600\,y^6+42080020585102165249150156800\,y^4+8142354162519524723084230656000\,y^2+829736418158311427016176015769600)t^4+$
$(-2270211147871423561728000\,y^4-1611437149325461379088384000\,y^2-236992212361124247935700172800)t^2-22289345815464885878784000,\quad \mathbf{a}_9 =$
$(866636707921920\,y^{22}+1300502411382620160\,y^{20}+1089362019887559475200\,y^{18}+640868004293042629509120\,y^{16}+288170959432301880016896000\,y^{14}+$
$102896891394092649087164743680\,y^{12}+29634304721498682937103446179840\,y^{10}+6883790993036019975202969485312000\,y^8+1269787444522250115855195947831132160\,y^6+$
$179027457524721204453247428684310118400\,y^4+17727339074987225062984033028192002375680\,y^2+979838377962930258026753825558248858583040)t^{11}+$
$(270938002371379200\,y^{18}-638011182995944243200\,y^{16}-840742678899288598118400\,y^{14}-482979213715195386711244800\,y^{12}-165537155961891038805413068800\,y^{10}-$
$34306864410623318785786694860800\,y^8-3075319634693734127133359131852800\,y^6+429548557965447646452665295883468800\,y^4+169724064366835411525199458373468160000\,y^2+$
$18465978203111692773941701071033335808000)t^9+(-51637595746074624000\,y^{14}-201262693179900454502400\,y^{12}-96196093393826585405030400\,y^{10}-$
$21999073276661724119826432000\,y^8-2454299538973018581694729420800\,y^6+374509647175174266712643076096000\,y^4+257034039786313243415566487440588800\,y^2+$
$39036534804372144650795875425897676800)t^7+(9542627693874590515200\,y^{10}+18738250744335559557120000\,y^8+12926719864534302210392064000\,y^6+$
$3607606490492998564718837760000\,y^4+475997309736203103104497876992000\,y^2+55341062407124027660404604377497600)t^5+(-630614207742062100480000\,y^6-$
$784176138142669388906496000\,y^4-252289921092987691135401984000\,y^2-29497677796289438610295357440000)t^3+(-18574454846220738232320000\,y^2-$
$10580009480407332497129472000)t,\quad \mathbf{a}_8 = (54164794245120\,y^{24}+78818327962583040\,y^{22}+67014124257127956480\,y^{20}+40891467820678187581440\,y^{18}+$
$19425182661732300509675520\,y^{16}+7463870654096140365862010880\,y^{14}+2362145763180161945293931151360\,y^{12}+619083287533350266506058630430720\,y^{10}+$
$133639567776023181938111111988510720\,y^8+23333915812210853614131125536381992960\,y^6+3171803314887420170582927478083372974080\,y^4+$
$309422645672504292008448576492078586920960\,y^2 + 17637090803332744644481568860048479454494720)t^{12} + (20320350177853440\,y^{20} -$
$70380130498353561600\,y^{18} - 90716928206703899443200\,y^{16} - 56579907888537320344780800\,y^{14} - 22667297643345319033621708800\,y^{12} -$

$6200400762543581883101180067840\,y^{10}-1108170150645827689051348323532800\,y^8-9429114687046411751399969909637120 0\,y^6+9334823540175947633885970210540748800\,y^4+$
$391044244301188788154059552092470640 6400\,y^2+43431980733718701404310880919070405820 4160)t^{10}+(-4841024601194496000\,y^{16}-2379460411979118673920 0\,y^{14}-$
$966701551220593482792960 0\,y^{12}-1247888877541653152268288000\,y^{10}+1333952955612106521286017024 00\,y^8+877009218347807792480127025152 00\,y^6+$
$354227139567089940303813336367104 00\,y^4+112278996427291118393593487847063552 00\,y^2+1400223531026392145082895531581112320000)t^8+$
$(119282846173432381440 0\,y^{12}+299812011909368952913920 0\,y^{10}+2657739139139241630498816000\,y^8+99389921103401396744403025920 0\,y^6+$
$1587440246210335388970264821760 00\,y^4+16018551114005492380213162750771200\,y^2+273270552176107104676590954857103360 0)t^6+(-1182401639516366438400 00\,y^8-$
$2242300326832658007982080 00\,y^6-1111835025172179869321134080 00\,y^4-1990278098031142961797083955200 0\,y^2-26448265687243994538072311070720 00)t^4+$
$(-696542056733277683712000 0\,y^4-4992813462664134436847616000\,y^2-20173004272209088485859000320 00)t^2+343627414655083657297920 00,\quad \mathbf{a}_7=$
$(2777681756160\,y^{26}+3831446498181120\,y^{24}+3282551541029928960\,y^{22}+2056323812821460582400\,y^{20}+1019791990583597664829440\,y^{18}+$
$415426232781608404238991360\,y^{16}+141700676533649013283781345280\,y^{14}+40809794841690915825729027440640\,y^{12}+9923648674129265514585283016785920\,y^{10}+$
$2020570627637843037872649962174545920\,y^8+337939470383743397170174921561394380800\,y^6+44744941408523904971809965718217246638080\,y^4+$
$4331917039415060088118280070889100216893440\,y^2+260486264172298997826189324702254465789460480)t^{13}+(1231536374415360\,y^{22}-$
$583951082758078464 0\,y^{20}-7233853412961209548800\,y^{18}-4745742273984199152107520\,y^{16}-2102050603858950609489100800\,y^{14}-674935593575973765845153218560\,y^{12}-$
$157935856359995234100947409960960\,y^{10}-25267023525214695048671830789324800\,y^8-2033787506344472196225039663586344960\,y^6+$
$162935101792161995064191480038529433600\,y^4+7056176141612562132913252362201914671104 0\,y^2+819970011032136373822388727704008255340544 0)t^{11}+$
$(-358594414903296000\,y^{18}-216877902133513420800 0\,y^{16}-5655794363858059001856 00\,y^{14}+1593406496860981847654400 00\,y^{12}+131438927837064705573755289600\,y^{10}+$
$356099502310322337058740240384 00\,y^8+5868393663076549401255347434291200\,y^6+122018019079576118503256253970513920 0\,y^4+338142559007772089115589690144063488000\,y^2+$
$381268138193659068450208063290158874624 00)t^9+(113602710641364172800\,y^{14}+353944736281893902745600\,y^{12}+385814030989944578428108800\,y^{10}+$
$180974749011478909253635276800\,y^8+381531316616701545508012818432 00\,y^6+248645468871933678829930429808640 0\,y^4+23267366190408378026606773068103680 0\,y^2+$
$100717451187943441215338447819400806400)t^7+(-157653551935515525120 00\,y^{10}-42069338471810709061632000\,y^8-27507647263309807944204288000\,y^6-$
$674838177734565675502298726400 0\,y^4-1050160804386218368894400200704000\,y^2-16037081829088602785980667972812800 0)t^5+(-1547871237185061519360000\,y^6-$
$6835399383409231669493760 00\,y^4-43271050009755831786012672000 0\,y^2-2174307088615805001056303185920 00)t^3+(22908494310338910486528000\,y^2+$
$8737423559662235264483328000)t,\quad \mathbf{a}_6=(115736739840\,y^{28}+147363326853120\,y^{26}+127113872057303040\,y^{24}+81006695656602992640\,y^{22}+$
$41569376769959987773440\,y^{20}+17751728676140123695349760\,y^{18}+6433560435325856251694284800\,y^{16}+1998374079032793841861090344960\,y^{14}+$
$533625236747667820940530758451200\,y^{12}+122126694449577041922820433887887360\,y^{10}+23720751286551219224444970455751720960\,y^8+$
$3834076900353743269712530019169274429440\,y^6+499019855030656431719507753264185564200960\,y^4+47984311821212973283771717708310033171742720\,y^2+$
$3125835170067587973914271896427053589473525760)t^{14}+(59866351534080\,y^{24}-370523414294691840\,y^{22}-430542798309493309440\,y^{20}-$
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$(-153274286603973427200 0\,y^{12}-545615056347010820997120 0\,y^{10}-429111183514023988140441600 0\,y^8-14413961879684428576963166208 00\,y^6-$
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$57787192854908963389440000\,y^6+6700672670924643914848665600 0\,y^4-1921805227686034832377459507200 0\,y^2-1584790889563458633791323924070400 0)t^4+$
$(6681644173848848891904000\,y^4+7578377577258061198786560000\,y^2+896566646081259569558820761600 0)t^2-417925234039966610227200 00,\ quad\mathbf{a}_5=$
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$(460196165792563200\,y^{18}+206034007026837749760 0\,y^{16}+3121294634476035165388800\,y^{14}+1808945009603036649514598400\,y^{12}+678493284511365098283781324800\,y^{10}+$
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$1208082543198196814630092800 0)t,\ quad\mathbf{a}_4=(100465920\,y^{32}+97462517760\,y^{30}+89780178124800\,y^{28}+56587517511598080\,y^{26}+30856840431324364800\,y^{24}+$
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$5425330108457649048581341383229440 00\,y^4-54206007694703568442120832261554176000\,y^2-3321753882861336048955549058649292800000)t^8+$
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$(-846526464000\,y^{26}-9930771254476800\,y^{24}+11050169090546073600\,y^{22}+9908640750155857920000\,y^{20}+5935283898029685551923200\,y^{18}+$
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$8986032659533219950890153936643537921638400\,y^2+12966348966393946824842725189561718522511136000)t^{13}+(581055764889600\,y^{22}+$

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$(-211191422238720000\,y^{18}-1467496236100091904000\,y^{16}-1440857917083378253824000\,y^{14}-1088111438793915443970048000\,y^{12}-231009558009910104617385984000\,y^{10}-$
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$(-483709761620331724800000\,y^{6}-1266158672017380322836480000\,y^{4}-275496314279145989461770240000\,y^{2}-210126120871550572156472524800000)t^{3}+$
$(-11754147207374060912640000\,y^{2}-13415400012682928188293120000)t,\,quad\mathbf{a}_2=(27360\,y^{36}+14929920\,y^{34}+20424130560\,y^{32}+9906778275840\,y^{30}+$
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$(-5279785555968000\,y^{20}-43910262252896256000\,y^{18}-42592620867426975744000\,y^{16}-38166628206061566296064000\,y^{14}-7992575908629588574470144000\,y^{12}+$
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$(322224352519716864000\,y^{12}+2532489329727781208064000\,y^{10}-1549419108422246580879360000\,y^{8}-1114718252296499898580205568000\,y^{6}-$
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$123313741895743234375680000\,y^{6}-21509218711923614873026560000\,y^{4}-21269385350949212700970844160000\,y^{2}-6488318011726583573480063631360000)t^{4}+$
$(-1469268400921757614080000\,y^{4}+1441842057437884805283840000\,y^{2}-1320142229285446528385679360000)t^{2}+9795122672811717427200000,\,quad\mathbf{a}_1=$
$(240\,y^{38}+69120\,y^{36}+179159040\,y^{34}+51597803520\,y^{32}+59440669655040\,y^{30}+17118912860651520\,y^{28}+11503909442357821440\,y^{26}+$
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$2380667033549927682919228750839180133159403520\,y^{2}+1287650539902516982839434555575845332510803230720)t^{17}+(-167961600\,y^{30}-$
$2563765862400\,y^{28}+5883697535385600\,y^{26}+2855381168553984000\,y^{24}+2132716961462117990400\,y^{22}+958994650888553889792000\,y^{20}+$
$302579507403916974017740800\,y^{18}+93068357576654906065944576000\,y^{16}+21090513563059590948602039500800\,y^{14}+1736211142922056035874363146240000\,y^{12}+$
$736965537195026074649046599231078400\,y^{10}-175911673613216077810174095970113945600\,y^{8}+11868056085784331053067261930638619443200\,y^{6}-$
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$(155196518400\,y^{26}+1214934781132800\,y^{24}+2941978794157670400\,y^{22}-946301404975202304000\,y^{20}+189005637166238269440000\,y^{18}+$
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$35955140447248207386884702208000\,y^{10}-1074771736456621111913689653182464000\,y^{8}-19574417042925471482012192377877299200\,y^{6}-$
$1615714243227810258122079791455666176000\,y^{4}-37348551836941981557990709903528820736000\,y^{2}-1088128464832919836631626620076052132659200)t^{11}+$
$(-431982454579200000\,y^{18}+435438314215833600000\,y^{16}-682027920205881016320000\,y^{14}+364242766391815069237248000\,y^{12}+180162069766329891117072384000\,y^{10}+$
$127107565924837508529965236224000\,y^{8}-34005635950910820241581809860608000\,y^{6}-923640955961456014176985961988096000\,y^{4}-11495133445999008941640612354981888000\,y^{2}-$
$87483171112433988935309789423506292736000)t^{9}+(7672008393326592000\,y^{14}+80319707330783477760000\,y^{12}-76929200488097557512192000\,y^{10}-$
$397251177853350846325063680000\,y^{8}-14504994870120093165690028032000\,y^{6}+10928407052819947671630901149696000\,y^{4}-546256474237971424791800756305920000\,y^{2}+$
$261913527648792380207773240881315840000)t^{7}+(-1007728670042357760000\,y^{10}-5879760880140476743680000\,y^{8}-43773798587593539767500800000\,y^{6}-$
$1381939440558822924484608000000\,y^{4}-5490097683545482226757638553600000\,y^{2}-86333333845926133897439289016320000)t^{5}+(-81626022273430978560000\,y^{6}+$
$519794509837208471470080000\,y^{4}+1332067029296720242330828800000\,y^{2}-97597912735259786499713925120000)t^{3}+(1632520445468619571200000\,y^{2}+$
$3855360284018691979345920000)t,\,quad\mathbf{a}_0=(y^{40}+829440\,y^{36}+309586821120\,y^{32}+68475651442606080\,y^{28}+9939377758197157724160\,y^{24}+$
$989294098531086006327272448\,y^{20}+68380008090468668489821017605760\,y^{16}+3240977937746190422411267979010375680\,y^{12}+100807377775657506898680079219138725150720\,y^{8}+$
$1858081587160919167156471220167164981978071040\,y^{4}+15411671916547527940062634888554533226518912434176)t^{20}+(1080\,y^{36}-19906560\,y^{34}-$
$1343692800\,y^{32}-11557907988480\,y^{30}-921330379653120\,y^{28}-2875977360589455360\,y^{26}-224326234125977518080\,y^{24}-397575110327886308966400\,y^{22}-$
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$(-874800\,y^{32}-15049359360\,y^{30}+45341569843200\,y^{28}+12482540627558400\,y^{26}+14211372504475238400\,y^{24}+6729787023779325542400\,y^{22}+$
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$73505379628083598780287557763955320422400\,y^{6}-15478132795970746371734837163438591757516800\,y^{4}+48208507429386035579114382204493397696477921280)t^{16}+$
$(923788800\,y^{28}+8126654054400\,y^{26}+21600646476595200\,y^{24}-20995633335553228800\,y^{22}-3457913404646227968000\,y^{20}+426564962122628018995200\,y^{18}+$
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$30424060574661885413669252560532275200\,y^{8}-6263696267497285833563277130059271372800\,y^{6}+706702328964795641398326007471916502220800\,y^{4}+$
$631810240208933424487477396505951959882137600)t^{14}+(-555532992000\,y^{24}-6338790162432000\,y^{22}-5205512001237811200\,y^{20}-4605158748643865395200\,y^{18}-$
$8188205478877877973811200\,y^{16}+30660495539598682289602560000\,y^{14}+3951158349376199817236054016000\,y^{12}-1614156983515783293181485907968000\,y^{10}-$
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$86003766236822183608320000\,y^{14}-43284310925667207720468480000\,y^{12}+5728091729275632858332921856000\,y^{10}-472556276283621954886362464256000\,y^{8}-$
$2104187739194055643016119969907520000\,y^{6}+535856895031457607022420047503032320000\,y^{4}-3211448719936688724786957111006792253440000)t^{10}+$
$(79916754097152000\,y^{16}+10749105813785149440000\,y^{14}-1458295355403518607360000\,y^{12}-320673057493272596840448000\,y^{10}+768365404933504106294673408000\,y^{8}-$
$478062364556134935579057979392000\,y^{6}+241881297033312248568491437719552000\,y^{4}+616452403926593975672827819151327232000)t^{8}+$
$(-13996231528366080000\,y^{12}-110357486354860867584000\,y^{10}-238759138335795739361280000\,y^{8}+86581725523183601146920960000\,y^{6}-$
$248379393351328948833453342720000\,y^{4}+685480261675989201024754277941248000)t^{6}+(-1700542130696478720000\,y^{8}+25539875413553515069440000\,y^{6}-$
$21196935689821528711495680000\,y^{4}-3201850261210208958960359178240000)t^{4}+(68021685227859148800000\,y^{4}+26705422455153866393518080000)t^{2}+$
734634200460878807040000
$\mathbf{b}_{20}=0,\quad \mathbf{b}_{19}=0,\quad \mathbf{b}_{18}=153350399697899004887040\,ty,\quad \mathbf{b}_{17}=(230025599546848507330560\,y^{3}+66247372669492370111201280\,y)t^{2},\quad \mathbf{b}_{16}=$
$(162934799679017692692480\,y^{5}+88329830225989826814935040\,y^{3}+13514464024576443502685061120\,y)t^{3}+1035115197960818282987520\,ty,\quad \mathbf{b}_{15}=$

$(7241546652400786341888 0\,y^7+5520614389124364175933440 0\,y^5+1589936944067816882668830720 0\,y^3+1729851395145784768343687823360\,y)t^4+$
$(1380153597281091043983360\,y^3+4858140662429440474821427 20\,y)t^2, \quad \mathbf{b}_{14}=(22629833288752457318400\,y^9+2146905595770586068418560 0\,y^7+$
$8700488277259997941271101440\,y^5+178072937735595490858909040640 0\,y^3+15568662556312062915093190410240 0\,y)t^5+(86259599830068190248960 0\,y^5+$
$5152573429849406564204544 00\,y^3+10334590136440809737347399680 0\,y)t^3-5175575989804091414937600\,ty, \quad \mathbf{b}_{13}=(52802944340422400409 60\,y^{11}+$
$581453598854533726863360 0\,y^9+29369668550141617415965900 80\,y^7+8458464542440785815798179430 40\,y^5+1388968914337644828699490516992 00\,y^3+$
$104621412378417062789426239556812 80\,y)t^6+(3354539993391540731904 00\,y^7+24689414351361739786813440 0\,y^5+896547776793796742171590656 00\,y^3+$
$133554703301696618144181780480 00\,y)t^4+(-6038171988104773317427200\,y^3-17389935325741747154190336 00\,y)t^2, \quad \mathbf{b}_{12}=(9533864950354044518 40\,y^{13}+$
$1162907197709067453726720\,y^{11}+683789432252931662791311360\,y^9+2456747011352197049812726579 20\,y^7+56716230668787163838562529443840\,y^5+$
$80004609465848342133090653778739 20\,y^3+5440313443677687265050164456954265 60\,y)t^7+(9085212482102089482240 0\,y^9+697744318625440472236032 00\,y^7+$
$3362054162976737783143464960 0\,y^5+96456174606780890881909063680 00\,y^3+1180623577186998104394566939443200\,y)t^5+(-3270676493556752213606400\,y^5-$
$1932215036193527461576704000\,y^3-2156351980391976647119601664 00\,y)t^3+332099459345762532458496 00\,ty, \quad \mathbf{b}_{11}=(13619807071934349312 0\,y^{15}+$
$17766637742777419431936 0\,y^{13}+1162907197709067453726720 00\,y^{11}+48743344646375386097374986240\,y^9+1403808325815611119604399603712 0\,y^7+$
$27779378286752896573989810339840 00\,y^5+352020281649732705385598876626452480\,y^3+22383003882559627604777819480040407040\,y)t^8+$
$(18170424964204178964480\,y^{11}+1259816130851489741537280 0\,y^9+682715979455046369757102080 0\,y^7+29011049439424098719097264537 60\,y^5+$
$717633939074449828161403433779200\,y^3+7600437899255592502643612108980224 0\,y)t^6+(-1090225497852250737868800\,y^7-99026020604918282405806080 0\,y^5-$
$2233640581839717745582669824 00\,y^3-10016602747627246360813633536000\,y)t^4+(332099459345762532458496 00\,y^3+11303457961732135650223718400\,y)t^2, \quad \mathbf{b}_{10}=$
$(15606028936591441920\,y^{17}+2115075921759216599040 0\,y^{15}+1492397570393303232282624 0\,y^{13}+699032461982902823877083136 0\,y^{11}+$
$23514284104460751796403856998 40\,y^9+5798054852670989182366078363238 40\,y^7+10267258214783870573746633901604864 0\,y^5+120692667994194070417919614843355136 00\,y^3+$
$7386391281244677109576680428413334323 20\,y)t^9+(2776037147308971786240\,y^{13}+142133101942219355455488 0\,y^{11}+698638862623678216431206400\,y^9+$
$432816168107350151393181696000\,y^7+17743484304204294034999794991104 0\,y^5+39113364627748078376177652958494720\,y^3+369621295732219340654878820457775104 0\,y)t^7+$
$(-24984334325780746076160 0\,y^9-30995949538937836362792960 0\,y^7-10193722459278319711458164736 0\,y^5-107214747928306451787968151552 00\,y^3+$
$39665746880603895588821988802560 0\,y)t^5+(1522122522001411607101440 0\,y^5+985429668458699005404119040 0\,y^3+19720186659391141272851841024 00\,y)t^3-$
$1188765110158127246868480 00\,ty, \quad \mathbf{b}_9=(1445002679314022400\,y^{19}+198288367664926556160 0\,y^{17}+14720928415444147529318 40\,y^{15}+$
$74783878252675414716579840 0\,y^{13}+28184576661276253906198855680 0\,y^{11}+81171580784475611249852704358400\,y^9+178642771136349396429657549570048 00\,y^7+$
$2916739476526356701766390692047749120\,y^5+325870203584323990128382960077058867200\,y^3+19697043416652472292204481142435558195200\,y)t^{10}+$
$(3304806127748775936 00\,y^{15}+74027657261572580966400\,y^{13}-49199919903075930734592 00\,y^{11}+20137974488328097321766092800\,y^9+$
$2061441577814150578206953963520 0\,y^7+810944158447901865371471771074560 0\,y^5+16134262908946082330173281845379072 00\,y^3+1387965681933231809806075570698584064 00\,y)t^8+$
$(-4164055720963457679360 0\,y^{11}-66112392369758281924608000\,y^9-270885813546353697182711808 00\,y^7-43266159090445466919625555968 00\,y^5+$
$5898666062491600634701361971200 0\,y^3+867357665122538516875574155149312 00\,y)t^6+(42281181166705877975040 00\,y^7+389462093232757878974054400 0\,y^5+$
$13593132779621465692192112640 00\,y^3+195416499900468593354021535744000\,y)t^4+(-99063759179843937239040000\,y^3-3867449158381107309812121600 0\,y)t^2, \quad \mathbf{b}_8=$
$(108375200948551680\,y^{21}+146880272344390041600\,y^{19}+112627792833678283898880\,y^{17}+607267582803680059352678 40\,y^{15}+249255739668965042543394816 00\,y^{13}+$
$8052853962043040531063997726720\,y^{11}+2067426807110263648871933961830400\,y^9+417782312287594859138952512919306240\,y^7+64268845706908342497542194904086609920\,y^5+$
$6951897676465578456072169814977255833600\,y^3+425456137799693401511616792676608057016320\,y)t^{11}+(30982557447644774400\,y^{17}-$
$52876898043980414976 00\,y^{15}-129149789745574318178304 00\,y^{13}-431528024749887799752130560 0\,y^{11}+429466995377948037126448742400\,y^9+$
$78530165541397611468778886922240 0\,y^7+2834778710400491738081144799756288 00\,y^5+512943838975324799276158363084259328 00\,y^3+$
$40733775448040498766047870009632358400 00\,y)t^9+(-52050696512043220992 00\,y^{13}-1014748348000941071400960 0\,y^{11}-4641676988855874910735564800\,y^9-$
$8950020047648419202023292928 00\,y^7-584301826944922704380795289600\,y^5+36604673080929009100957342393958400\,y^3+616881695487151784197359569857413120 0\,y)t^7+$
$(7927721468757352120320 00\,y^9+920821228185977930907648000\,y^7+42366229937338331504396206080 0\,y^5+11783420176722607871679371673600 0\,y^3+$
$114239354336688744745079490478080 00\,y)t^5+(-3714890969244147646464000 0\,y^5-275340642657577663274680320 00\,y^3-605495810623170458724964761600 0\,y)t^3-$
$44578691630929771757568000 0\,ty, \quad \mathbf{b}_7=(6568193996881920\,y^{23}+856801588675608576 0\,y^{21}+669774041890418589696 0\,y^{19}+37719938592358213563187 20\,y^{17}+$
$1652503907144559676662743040\,y^{15}+582859106384564870542818017280\,y^{13}+167863422638754682716331588976640\,y^{11}+39474801813369127052480992908410880\,y^9+$
$7473661364255863591263483842223144960\,y^7+110071713210704992221142688737139884032 0\,y^5+11679188096462171806201245289161789800448 0\,y^3+$
$7426143496140103008202765835809886086103040\,y)t^{12}+(22950042553810944 00\,y^{19}-154224285961609543680 0\,y^{17}-2128091773585427162726400\,y^{15}-$
$998311102033322521814630400\,y^{13}-2083357190135776720793370624 00\,y^{11}+15086735002599062419990904832000\,y^9+2384752782155094813582509872250880 0\,y^7+$
$762065884450520252318274491158364160 0\,y^5+126727301393903773938815595585522892800 0\,y^3+9385061863228530915697429250219295375360 0\,y)t^{10}+$
$(-49572091916231639040 0\,y^{15}-1153123122728342126592000\,y^{13}-532924586950136104275148800\,y^{11}-100153146042697840091725824000\,y^9+$
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$(1057029529167646949376 00\,y^{11}+144664537215010194063360000\,y^9+795589541152684932304207872 00\,y^7+30453254742438947616418116403200\,y^5+$
$6721140443657882308105948102656000\,y^3+38444522673613181712511590601850880 0\,y)t^6+(-825531326498699476992000 0\,y^7-868741994788574261044838400 0\,y^5-$
$302367500476334628643484467200 0\,y^3-47766674352747431083130014924800 0\,y)t^4+(-297191277539531811717120000\,y^3-119827523103939226484342784000\,y)t^2, \quad \mathbf{b}_6=$
$(319287208181760\,y^{25}+389455267579822080\,y^{23}+308448571923219087360\,y^{21}+179184893474165426749440\,y^{19}+82566411037343789214597120\,y^{17}+$
$31190244495355074401984839680\,y^{15}+9817095104423477338647633592320\,y^{13}+2587043639422731291198230542417920\,y^{11}+568032727207523229144943641829048320\,y^9+$
$102248352577645438118155489087806504960\,y^7+14598985120577714757751556611452237250560\,y^5+1528911896264138854629981201490270664785920\,y^3+$
$103966008945961442114838721701338405205442560\,y)t^{13}+(133875248230563840\,y^{21}-171360317735121715200\,y^{19}-200728839882341036851200\,y^{17}-$
$106391099523742376279408640\,y^{15}-32811873855360457078996992000\,y^{13}-4877219905758254277413453168640\,y^{11}+619100246860753656552807097958400\,y^9+$
$55798086601822433487693994430300160 0\,y^7+1564594759517042747475377160882801868 80\,y^5+243316418676295245962525943524203954176 00\,y^3+$
$1693482273987014911899180566928459521064960\,y)t^{11}+(-361463170222522368 00\,y^{17}-982290067509328478208 00\,y^{15}-407669790863555297280000 00\,y^{13}-$
$473392683867414228086292480 0\,y^{11}+2483669207523160199110695321600\,y^9+145574626598849313777158140723200 0\,y^7+41598550546786049046604587529666560 0\,y^5+$
$7835528367070623784911616953160826880 0\,y^3+811542141618653013877415256345752371200 0\,y)t^9+(102766759780187897856 00\,y^{13}+15850201468775029958246400\,y^{11}+$
$1013708440602989693774069760 0\,y^9+439720616503348356189215784960 0\,y^7+161442594784882143220413738516480 0\,y^5+24277039747369204459776787328532480 0\,y^3+$
$5584167885698010726385625536344883200\,y)t^7+(-12038998511439367372800 00\,y^9-1593825814360155779024588800 0\,y^7-656198340807286240271400960000\,y^5-$
$12635527007683953482234698137600 0\,y^3-2520385930526924085346560481689600 0\,y)t^5+(-866807892823634450841600 00\,y^5-43746556053819082684760064000\,y^3-$
$1038505200234139962864304128000 0\,y)t^3+549803863448133851676672000\,ty, \quad \mathbf{b}_5=(12280277237760\,y^{27}+13522752346521600\,y^{25}+$
$10904747492235018240\,y^{23}+6453693197162737827840\,y^{21}+3096116171678414631075840\,y^{19}+1235186352766677184696811520\,y^{17}+417152344880607955437999882240\,y^{15}+$
$120139875325615091166143966085120\,y^{13}+29505973491037230453357792397885440\,y^{11}+6134507285812125187558827975895941120\,y^9+$
$1060610030127440815734087446131145441280\,y^7+148644212136791277533470394589331870187520\,y^5+15289118962641388546299812014902706647859200\,y^3+$
$1151623483709111358810521224999440796121825280\,y)t^{14}+(6085238555934720\,y^{23}-12138022506237788160\,y^{21}-1257521100917739356160 0\,y^{19}-$
$7137715652605333890662400\,y^{17}-2611829929788016318123868160\,y^{15}-613568444026467333665477099520\,y^{13}-61910024686075365655280709795840\,y^{11}+$
$16895560332353300172693289775923200\,y^9+9711328749008360298924388589450035200\,y^7+2409768377274847147513478094518558392320\,y^5+$
$360108299640916964024538396415821852180480\,y^3+23698134392094152246764708623099195304181760\,y)t^{12}+(-2008128723458457600\,y^{19}-$
$6272776246323157401600\,y^{17}-1931034735084741549096960\,y^{15}+216032375574415223134617600\,y^{13}+43030428856029856569313198080 0\,y^{11}+$
$19387072787151377138476017254400 0\,y^9+5413773453037574113092552653537280 0\,y^7+1096863195776780770644672863306514432 0\,y^5+$
$1748260726047717972292296966373008998400\,y^3+174766696876146681475006615204404186316800\,y)t^{10}+(73404828414419927040 0\,y^{15}+$
$1235239466316572550758400\,y^{13}+933400753161196208652288000\,y^{11}+388777767074106004664745984000\,y^9+199381405154737711705176932352000\,y^7+$
$61019808391512167863895213683507200\,y^5+4897589866964648751830015839253299200\,y^3-918329832653376124084599027451035648 00\,y)t^8+$
$(-1203899851143936737280 00\,y^{11}-187303885412260481335296000\,y^9-83372059725756657580376064000\,y^7-16415229450733922261979676672 00\,y^5-$
$41388046075265358226972999680000\,y^3-11607038931895500537983622268846080 00\,y)t^6+(-144467982137272408473600 00\,y^7-4398430907585070813413376000\,y^5-$
$1852571547670425501519839232000\,y^3-46123325464464835977059028172800 0\,y)t^4+(274901931724066925838336000\,y^3+181881061854193468770877440000\,y)t^2, \quad \mathbf{b}_4=$
$(365484441600\,y^{29}+346737239654400\,y^{27}+292091450684866560\,y^{25}+172558641635367321600\,y^{23}+85934203534412926156800\,y^{21}+$
$35781759929509767806976000\,y^{19}+12795557350792692967774617600\,y^{17}+3957176394124344241309089792000\,y^{15}+1061314708904149125519097882214400\,y^{13}+$
$246168029125687206563355857780736000\,y^{11}+49036671401836891547420486869922611200\,y^9+8167264403120399864476395307106146713600\,y^7+$
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$(211293005414400\,y^{25}-595001103246950400\,y^{23}-537148688285093068800\,y^{21}-321994425291595422105600\,y^{19}-130168575965789526845030400\,y^{17}-$
$37499284406126236661710848000\,y^{15}-6986889570875795301061361664000\,y^{13}-346648652125292555538676265779200\,y^{11}+288136259091212351848983540478771200\,y^9+$
$122296276869641404220675190145469644800\,y^7+26983166942948126635587812967748259020800\,y^5+4034628615141477533051339281710436476518400\,y^3+$
$252270462883582911013946898245894659689676800\,y)t^{13}+(-83672030144102400\,y^{21}-296585165310787584800\,y^{19}-394889666467435905024 00\,y^{17}+$
$46814469241108612880793600\,y^{15}+40616770239984775181893632000\,y^{13}+17395087899171596560754540544000\,y^{11}+5057642416977861097665639481344000\,y^9+$
$1089293528881165889042849670679756800\,y^7+179299561114058347990502280962821324800\,y^5+25948079614080437069430214256951820288000\,y^3+$
$2703619744445449867637451734005481629286400\,y)t^{11}+(38231681465843712000\,y^{17}+6843028632352535347 2000\,y^{15}+63841089249232759554048000\,y^{13}+$
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$240936958506766353423884545802895360000\,y^3-63524275335956397871690387489963376640000\,y)t^9+(-8360415632944005512 0000\,y^{13}-14614962002458457407488000\,y^{11}-$

$7187626082715343446343680000\,y^9-2094038045474735386483752960000\,y^7+5214690922904634816215132405760000\,y^5+16383823227535632630837499920384000\,y^3-$
$46046162565198489484718500346855424000\,y)t^7+(-150487481392992092160000\,y^9+297191277539531811717120000\,y^7+5214716283226984856263065600\,y^5+$
$4564858023007208627974963200000\,y^3-1324539203955771655493215322112000\,y)t^5+(5727123577584727621632000\,y^5+64193315948538871330897920000\,y^3+$
$3723212325015254537192079360000\,y)t^3-50151028084795993227264000\,ty,\quad \mathbf{b}_3 = (8121876480\,y^{31}+6191736422400\,y^{29}+5825185626193920\,y^{27}+$
$3275418660671324160\,y^{25}+1725586416353673216000\,y^{23}+735513954106589671587840\,y^{21}+276712276788208871040614400\,y^{19}+90685292365349555529999974400\,y^{17}+$
$26117364201220671992639992627200\,y^{15} + 6610067448745304620682703588556800\,y^{13} + 1457314732424068262855066678061957120\,y^{11} +$
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$580650495987787239736397256302239056868147200\,y^3+631747739634712516833200214856836093872544153 60\,y)t^{16}+(5417769369600\,y^{27}-$
$20284128519782400\,y^{25}-15278629728131481600\,y^{23}-9864602346821831884800\,y^{21}-4211811325036045585612800\,y^{19}-1377597757286126060568576000\,y^{17}-$
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$109180444277824789854979590042912030 7200\,y^7+20826524227957019654414808033120674119 6800\,y^5+33126424419056341850316259365622531070361600\,y^3+$
$1975824604402887135214129552695119012954112000\,y)t^{14}+(-2535516064972800\,y^{23}-10092134097380966400\,y^{21}+11701632885898346496 00\,y^{19}+$
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$250377699358159758345354493633472810188800\,y^3+2947565723086152311089531066334608348938 2400\,y)t^{12}+(1415988202438656000\,y^{19}+$
$2638933914072121344000\,y^{17}+3212437952004815742566400\,y^{15}+8278259250358457739509760 00\,y^{13}+344417330201496270026047488000\,y^{11}+$
$33189271233688982502010729267200 0\,y^9 + 1267790280208572097170002914836480 00\,y^7 + 26319977964082069016745804119094067200\,y^5 -$
$1280012209446292052327809621495382016000\,y^3-144788157354797192909955888159179931648000\,y)t^{10}+(-398115030140190720000\,y^{15}-$
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$2855483028279837256308946580275200 0\,y^5+545616371586553261969151595066163200 0\,y^3-130094418467288564261089997427730022400 0\,y)t^8+$
$(-100324987595328061440000\,y^{11}+100439644724008436367360000\,y^9+25835828394103298831941632000\,y^7+1202079279391898272033406976000\,y^5+$
$15301404093120163320972076646400 00\,y^3-2934363774917401821400353944371200 00\,y)t^6+(6363470641760808468480000\,y^7+876714268741618844565504 0000\,y^5+$
$2981422896276583135146147840000\,y^3-947208039773995790304804864000000\,y)t^4+(-1671700936159866440908800 00\,y^3-151567551545161223975731200000\,y)t^2,\quad \mathbf{b}_2 =$
$(126904320\,y^{33}+68797071360\,y^{31}+84207615344640\,y^{29}+39944130008186880\,y^{27}+24445807565010370560\,y^{25}+9939377758197157724160\,y^{23}+$
$4055266125344440351457280\,y^{21}+1374019581293175083787878400\,y^{19}+420449991875711575639090790400\,y^{17}+113966680150781114149701786009600\,y^{15}+$
$27899043300911216743846997215150080\,y^{13}+5671711391055833239219718963268157440\,y^{11}+1157029123775389980800822668506704117760\,y^9+$
$156811476539911677397946789896438016901120\,y^7+27419606754978841876440981547605733240995840\,y^5+1858081587160919167156471220167164981978071040\,y^3+$
$284286482835620632574940096685576242242644869120\,y)t^{17}+(96745881600\,y^{29}-462316319539200\,y^{27}-268374623492505600\,y^{25}-201318415241261875200\,y^{23}-$
$85416527609506824192000\,y^{21}-31010858605575132099379200\,y^{19}-8544684271166932552305868800\,y^{17}-1714776437453882504567272243200\,y^{15}-$
$181634396490307400676087221452800\,y^{13} + 3282240388342496087511411437076 4800\,y^{11} + 1861030300190195281618970284822364160 0\,y^9 +$
$680605366926699988706366275592178892800 0\,y^7+100457352158380918333059662277405604577280 0\,y^5+188173771847894012877536147875725620281344000\,y^3+$
$10742034175774063935123349241591422552060723200\,y)t^{15}+(-52823251353600\,y^{25}-234047636766720000\,y^{23}+104329074565133107200\,y^{21}+$
$104829374793485647872000\,y^{19}+74610560353016851778764800\,y^{17}+32790404799402751218312806400\,y^{15}+11169748681227543549882610483200\,y^{13}+$
$2952449307656173238440711893811200\,y^{11}+595012914149718773155958668394496000\,y^9+107673895939575558415081185219329392 6400\,y^7+$
$12538026993852801354450091233174670540800\,y^5+1449689431553870975944560167011341041664000\,y^3+21566478382879727882136369447944491011932 1600\,y)t^{13}+$
$(35399705060966400\,y^{21}+67405719388815360000\,y^{19}+112618779726057150873600\,y^{17}+233326892873678277574656 00\,y^{15}-26098321148586186894213120 00\,y^{13}+$
$998568730704814992142840627200 0\,y^{11}+386214232978420178663890118246400 0\,y^9+123032729556775751780310563086663680 0\,y^7+2783745000862372709070479088490119168 00\,y^5-$
$327541332833474369564938770128736092160 00\,y^3-179820191725577428891151384800676114595840 0\,y)t^{11}+(-12441094691880960000\,y^{17}-$
$25054705896822669312000\,y^{15}-21738991597799086227456000\,y^{13}-10219606089867328839745536000\,y^{11}-929677213768531598439874560 00\,y^9+$
$2378804033078865076716004442112000\,y^7 + 2834798743605986992573866427023360 00\,y^5 + 750927880096998645896311939289579520 00\,y^3 -$
$228281537056923875911714472203093278720 00\,y)t^9+(-41802078164720025600 00\,y^{13}+88056674826527944212480 00\,y^{11}+107759355818963571730022400 0\,y^9-$
$560100833616598772924547072000\,y^7+600278830025447934578707660800000\,y^5-53522047348154919721280848527360000\,y^3-5081182175405359024928096765607936000\,y)t^7+$
$(39771691511005052928 0000\,y^9+569616615284102639124480000\,y^7+3227497274079315475247923200 00\,y^5-668751700370556063998332108800 00\,y^3-$
$754872311832610061973707764531200 00\,y)t^5+(-20896261701998330511360000\,y^5-21397771982846290443632640000\,y^3-6611911542699503747082485760000\,y)t^3-$
$28209953297697746190336 0000\,ty,\quad \mathbf{b}_1 = (1244160\,y^{35}+358318080\,y^{33}+825564856320\,y^{31}+237762678620160\,y^{29}+239664780049121280\,y^{27}+$
$69023456654146928640\,y^{25} + 39757511032788630896640\,y^{23} + 11450163177443125698232320\,y^{21} + 41220587438795252513636352 00\,y^{19} +$
$118715291823730327239272693760 0\,y^{17}+273520032361874673959284286423040\,y^{15}+78773769320219906100273874489835520\,y^{13}+11343422782111666478439437926536314880\,y^{11}+$
$32669057612481599457905581228424586854 40\,y^9+268819674068420018396480211251036600401920\,y^7+77420066131704965298186300840298540915752960\,y^5+$
$2787122380741378750734706830250747472967106560\,y^3 +802691245653517080211595567112215272214526689280\,y)t^{18} + (1074954240\,y^{31} -$
$6363729100800\,y^{29} - 2427160677580800\,y^{27} - 2576396385528053760\,y^{25} - 949072528994520268800\,y^{23} - 402544799206984887828480\,y^{21} -$
$121657983760333210543718400\,y^{19}-28167401416510089217651507200\,y^{17}-4550752853242995877505453260800\,y^{15}-512850060678515013673658037043200\,y^{13}+$
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$24305778863686309996681752433947892619673 60\,y^5+66129639820831324525534131967755003698872320 0\,y^3+36232590949637923759551188793259717148572385280\,y)t^{16}+$
$(-677221171200\,y^{27}-3315674854195200\,y^{25}+2858501803710873600\,y^{23}+1772321048463251865600\,y^{21}+1346475080680771210444800\,y^{19}+$
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$4091799465963320332102674048860179503513600\,y^3 + 952629719979963440192526748620860952674304000\,y)t^{14} + (536359167590400\,y^{23} +$
$1025128649038233600\,y^{21}+24387389274873397248 00\,y^{19}+536959353108854262988800\,y^{17}-252932315501722171185561600\,y^{15}+160695883843428367221129216000\,y^{13}+$
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$33096562858582432888311767545280924221440 0\,y^3-121467639835408146984425189204936166998016 00\,y)t^{12}+(-230390642442240000\,y^{19}-$
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$22056199998807691186744542648817051238400 0\,y)t^{10}+(-99528757535047680000\,y^{15}+34970424247514352844800 0\,y^{13}-41643469136712173617152000\,y^{11}+$
$33889240283238040244066016000\,y^9+12622919304572790715547910144000\,y^7+24672631560938481961399398432768000\,y^5-3579993921618463612832957507567616000\,y^3-$
$563397844784141149708867957319270400000\,y)t^8+(13257230503668350976000\,y^{11}+17026583609035676712960000\,y^9+297191277539531811717120000\,y^7+$
$20490506450773607728822616064000\,y^5-7371789221354341213316768071680000\,y^3-2056184422601395518237715759890432000\,y)t^6+(-11609034278887961395200000\,y^7-$
$408638006616856241111040000\,y^5+8024164493567358916362240000000\,y^3-51046524842278110482330025984 0000\,y)t^4+(-470165888294962436505600000\,y^3+$
$346042093785092353268121600000\,y)t^2,\quad \mathbf{b}_0 = (5760\,y^{37}+4299816960\,y^{33}+1426576071720960\,y^{29}+276093826616587714560\,y^{25}+34350489532329377094696960\,y^{21}+$
$2849167003769527853742544650240\,y^{17}+157547538640439812200547748979671040\,y^{13}+5600409876425417049926671067729929175040\,y^9+$
$116130099197557447947279451260447811373629440\,y^5+1070254994204689440282127422816287029619368919040\,y)t^{19}+(5598720\,y^{33}-40131624960\,y^{31}-$
$6191736422400\,y^{29}-16643387503411200\,y^{27}-3714804090761379840\,y^{25}-2484844439549289431040\,y^{23}-775271465139378302484480\,y^{21}-$
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$(-4031078400\,y^{29}-21671077478400\,y^{27}+29698044576399360\,y^{25}+10784915102210457600\,y^{23}+10461367649144143872000\,y^{21}+5118779545471536227942400\,y^{19}+$
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$2352172148098675160969201848446570253516800\,y^3 + 1923404767959545231626815911501166875875737600\,y)t^{15} + (3724716441600\,y^{25} +$
$7021429103001600\,y^{23}+24322230412797542400\,y^{21}+7297792552495742976000\,y^{19}-1013350623003694596096000\,y^{17}-531359134953220051933593 6000\,y^{15}+$
$57824755316484965166785495040000\,y^{13}-595653976725566916923050740940800\,y^{11}-78984251532623379970469104975872000\,y^9+9046675070369004841203327773442048000\,y^7+$
$4766896183201457342775448172409284198400\,y^5-1289406867642633128604210909109382912409600\,y^3-35147822358828640816774167204131302381977600\,y)t^{13}+$
$(-1919922020352000\,y^{21}-4072428879740928000\,y^{19}-9168020408371249152000\,y^{17}+6345671487498997884518400\,y^{15}-5454621801754369877606400000\,y^{13}+$
$7027466086635859377754472448000\,y^{11}+1096620914931491736708012048384000\,y^9+35365285434289264484579335471104000\,y^7-897455553058608866740546961198284800\,y^5+$
$144008297038527015839563176801730560000\,y^3 - 896365244086607557391777037684691697664000\,y)t^{11} + (-1036757890990080000\,y^{17} +$
$5414364409906593792000\,y^{15}-2484237788074790092800000\,y^{13}+2793912496995979487084544000\,y^{11}+488925881306813757445373952000\,y^9+$
$474895947165572792451399155712000\,y^7 + 179374817853821821017860345954304000\,y^5 - 43207297080876965830122143584616448000\,y^3 -$
$2758832027039762145993746965195653120 00\,y)t^9+(184128201439838208000\,y^{13}+171985693020562391040000\,y^{11}-670744202780193325056000000\,y^9+$
$176767484951767238867681280000\,y^7+194428715344934533487023620096000\,y^5-161170894435352754162876668706816000\,y^3-13110155381711314195003218151342080000\,y)t^7+$
$(-24185488081016586240000\,y^9+26829768111207733002240000\,y^7-81044061385030325055258624000\,y^5+51868199286419408035365519360000\,y^3-$
$13176234440509157344218332528640000\,y)t^5+(-19590245345623434854400000\,y^5+20060411233918397290905600000\,y^3+3196960870312128581593989120000\,y)t^3+$
$39180490691246869708800000\,ty$

$\mathbf{c}_{20} = 3833759992447475122176, \quad \mathbf{c}_{19} = (638959998741245853696 0\, y^2+184020479637478805864448 0)t, \quad \mathbf{c}_{18} = (5058433323368196341760\, y^4+$
$27603071945621820879667 20\, y^2 + 41956669357345167737094144 0)t^2 - 95843999811186878054 40, \quad \mathbf{c}_{17} = (25292166616840981708 80\, y^6 +$
$1955217596148212312309760\, y^4+563102667690685145945210880\, y^2+60417603874577041541415567360)t^3+(-1437659997167803170816 0\, y^2+$
$13801535972810910439833 60)t, \quad \mathbf{c}_{16} = (89576423434645143552 0\, y^8 + 868985598288094361026560\, y^6 + 3546994745012403983037235 20\, y^4 +$
$72077141464407698680986992640\, y^2+6162595595206858237224387870720)t^4+(-1018342497993860579328 0\, y^4+92010239818739402932224 0\, y^2+$
$1407756669226712864863027200)t^2 + 97042049808826714030080, \quad \mathbf{c}_{15} = (2388704624923870494 72\, y^{10} + 271557999465029487820800\, y^8 +$
$1392421629256922964374323 20\, y^6+40101742922599381373980508160\, y^4+6486942731796692881288829337600\, y^2+473287341711886712618832988471296)t^5+$
$(-4525966657750491463680\, y^6-7667519984894950244352 0\, y^4+13911948260593397723352268 80\, y^2+32434713658983464406444146688 0)t^3+$
$(1293893997451022853734 40\, y^2 + 317435327374650940116172 80)t, \quad \mathbf{c}_{14} = (49764679685913968640\, y^{12} + 6336353320850688049152 0\, y^{10} +$
$3814591192485237746565120 0\, y^8+1380889679199640959206817792 0\, y^6+31639745186949555965109731328 00\, y^4+435922551576737761622609331486720\, y^2+$
$28397240502713202757129979308277760)t^6+(-14143645805470285824 00\, y^8-3194799993706229268480 00\, y^6+5934660468308691489128448 00\, y^4+$
$302088019372885207707077836800\, y^2+42165127756678503728377390694400)t^4+(8086837484068892835840 0\, y^4+37954223925230003709542400\, y^2+$
$670754648278610247375912960 0)t^2 - 97042049808826714030080 0, \quad \mathbf{c}_{13} = (82941132809856614 40\, y^{14} + 11440637940424853422080\, y^{12} +$
$77378055847564872882585 60\, y^{10}+329335318391207902895407104 0\, y^8+948485716966678760338772459520\, y^6+18483970936954811951154758418432 0\, y^4+$
$22667972681990363604375685237309440\, y^2+1363067544130233732342239006797332480)t^7+(-330018402127640002560\, y^{10}-1770451663178868719616 00\, y^8+$
$134181599735661629276160000\, y^6+1252075343453405795101704192 00\, y^4+3583717871928859253535544442880 0\, y^2+370534168840227097379217931763712 0)t^5+$
$(31448812438045694361600\, y^6+21133601958366706610995200\, y^4+7245806385725727980912640000\, y^2+1085131964326285022421476966400)t^3+$
$(-1132157247769644997017600\, y^2-32606128735765775914106880 0)t, \quad \mathbf{c}_{12} = (1123161173466808320\, y^{16}+1634376848632121917440\, y^{14}+$
$12032859198517434069811 20\, y^{12}+5768019700636974570484531 20\, y^{10}+195462873061337238013099376640\, y^8+47842262604963321877426895585280\, y^6+$
$8278254729452363179048963481272320\, y^4 + 932625161773317816865742478335016960\, y^2 + 53159634221079115561347321265095966720)t^8 +$
$(-5958665593971277824 0\, y^{12} - 56530210999746334556160\, y^{10} + 1308270597422700885442560 0\, y^8 + 29884925893126558072386355200\, y^6 +$
$136244346632078008370696552448 00\, y^4+28334965852487954505469606546636 80\, y^2+238013713160898817845944694991749120)t^6+(8517386701970708889600\, y^8+$
$726816998568167158579200 0\, y^6+3634979536839073537091174400\, y^4+1029484171283911431528067891200\, y^2+128045571790501632645734282035200)t^4+$
$(-6132518425418910400512 00\, y^4-32606128735765775914106880 0\, y^2-5434354789294295985684480 0000)t^2+6368384518704253108224000, \quad \mathbf{c}_{11} =$
$(124795685940756480\, y^{18}+187272347239097303040\, y^{16}+146517077489138458951680\, y^{14}+76751875048798451945963520\, y^{12}+29343905682992370383144878080\, y^{10}+$
$8451044836701802670345724887040\, y^8+1833438966925691173883327482429440\, y^6+290302440061792555740071800854282240\, y^4+30776630338519487956569501785055559680\, y^2+$
$1701108295074531697963114280483070935040)t^9+(-8512379419958968320\, y^{14}-1245010599399175225344 0\, y^{12}-14536339971363343171584 00\, y^{10}+$
$43474838314354367885475840 00\, y^8+30303314855630329885399764172 80\, y^6+9653333954646631559461459093094 40\, y^4+16200933416834289281950857390194688 0\, y^2+$
$1165781452216647271082178097918771200 0)t^7+(1703477340394141777920\, y^{10}+1726190371599397001625600\, y^8+1123099989787487837041459200\, y^6+$
$457934963577866008393678848000\, y^4+103337951679687758289060652646400\, y^2+10875626599263759008717010748047360)t^5+(-2044172808472970133504 00\, y^6-$
$1494447567055931396063232 00\, y^4-436197544420688824450940928 00\, y^2-5736359999451344327928918835200)t^3+(6368384518704253108224000\, y^2+$
$194278183717271081488220160 0)t, \quad \mathbf{c}_{10} = (11439604544569344\, y^{20}+17340032151768268800\, y^{18}+14144570226764761006080\, y^{16}+7918844251066506946805760\, y^{14}+$
$3318042598263440768740884480\, y^{12}+1079072537972782120301972422656\, y^{10}+275211725270362831122443922309120\, y^8+54479329302934823452533159477903360\, y^6+$
$8071322172111728459198374242649374720\, y^4+820710142360519678841853380934814924800\, y^2+44909258989967636826226217004753072685056)t^{10}+$
$(-975376808536965120\, y^{16}-2026947758352582574080\, y^{14}-755082104068040325857280\, y^{12}+342431442525408477912760320\, y^{10}+430123948490253836463384821760\, y^8+$
$19228909393148719754581194571776 0\, y^6+48586132623530816107908178284380160\, y^4+6990117021330406578371177693010984960\, y^2+446261139908532575370257775883305615360)t^8+$
$(2602534825602161049 60\, y^{12}+2998120119093689529139 20\, y^{10}+23892711102931248862986240 0\, y^8+126560084870676048733274112000\, y^6+$
$4007336696463928214211621027840 0\, y^4+7280868205195292834748213944647680\, y^2+676538978795580043162947841016463360)t^6+(-468456268608388988928 00\, y^8-$
$4151243241822031655731200 0\, y^6-15765667060941563131802419200\, y^4-3710625755506050137211902361600\, y^2-415327303371755295632958632755200)t^4+$
$(29188429044061160079360 00\, y^4+160087034834627802578288640 0\, y^2+29427031184028612762481459200 0)t^2-6156105034747444671283200, \quad \mathbf{c}_9 =$
$(866636707921920\, y^{22}+1300502411382620160\, y^{20}+1089362019887559475200\, y^{18}+640868004293042629509120\, y^{16}+288170959432301880016896000\, y^{14}+$
$102896891394092649087164743680\, y^{12}+29634304721498682937103446179840\, y^{10}+6883790993036019975202969485312000\, y^8+1269787444522250115855195947831132160\, y^6+$
$179027457524721204453247428684310118400\, y^4+17727339074987225062984033028192002375680\, y^2+979838377962930258026753825558248858583040)t^{11}+$
$(-90312667457126400\, y^{18}-252450468091920384000\, y^{16}-142767624718747120435200\, y^{14}-81999866505126551224320 0\, y^{12}+39148823538876636957612441600\, y^{10}+$
$24642697685597771833964652134400\, y^8+8442437978044582221620877616742400\, y^6+1812485378732254703324660882630246400\, y^4+233087715063787298494607256166229606400\, y^2+$
$13541717348948574700890580785424446259200)t^9+(30982557447644774400\, y^{14}+39327192920210433638400\, y^{12}+3705368967700406033448960 0\, y^{10}+$
$24213069672300141002883072000\, y^8+9822221914986177498179017113600\, y^6+2441046089596759938130282492723200\, y^4+367040377801854713848566136386355200\, y^2+$
$31493243054735015249675899498187980800)t^7+(-780760447680648314880 0\, y^{10}-7783581078416309354496000\, y^8-3396471743308934991052800000\, y^6-$
$985268650539016211448987648000\, y^4-210974695371898876474637156352000\, y^2-21346048228710170477984573974118400)t^5+(810789695668365557760000\, y^6+$
$592023894146210196357120000\, y^4+171589752471967395747987456000\, y^2+29744035213404113361646387200000)t^3+(-5130087528956203892736000\, y^2+$
$900065011976867772628992000)t, \quad \mathbf{c}_8 = (54164794245120\, y^{24}+78818327962583040\, y^{22}+67014124257127956480\, y^{20}+40891467820678187581440\, y^{18}+$
$19425182661732300509675520\, y^{16}+7463870654096140365862010880\, y^{14}+2362145763180161945293931151360\, y^{12}+619083287533350266506058630430720\, y^{10}+$
$133639567776023181938111111988510720\, y^8+23333915812210853614131125536381992960\, y^6+3171803314887420170582927478083372974080\, y^4+$
$309422645672504292008448576492078586920960\, y^2 + 17637090803332744644481568860048479454494720)t^{12} + (-6773450059284480\, y^{20} -$
$24480045390731673600\, y^{18} - 17350232170681073664000\, y^{16} - 3865707992384537414860800\, y^{14} + 2016749444026994288020684800\, y^{12} +$
$2093593636016410875167590318080\, y^{10}+939223450969181467098958371225600\, y^8+268367110323628642155229912812748800\, y^6+51200092750662015810101836609329561600\, y^4+$
$6082910466907381149063148588105098854400\, y^2+327955772887263663665204611021552043950080)t^{10}+(2904614760716697600\, y^{16}+3965767353298531123200\, y^{14}+$
$4324211710231282974720000\, y^{12}+3373325417354533360002662400\, y^{10}+1670085913845923042320554393600\, y^8+527095895697362652942370760294400\, y^6+$
$106292181716721287482409953630617600\, y^4+13490887167620250659695341563019264000\, y^2+1115087102890108653720560441513685811200)t^8+$
$(-97595055960081039360 0\, y^{12}-103781081045550791393280 0\, y^{10}-488400057162849633435648000\, y^8-129297389505283545970507776000\, y^6-$
$49622180452004075504482123776000\, y^4-6939502383556156278771685313740800\, y^2-789612801236554881521483057096294400)t^6+(15202306793781854208000 0\, y^8+$
$129254619120367803826176000\, y^6+42337020280345874663473152000\, y^4+7677656446314981368575033344000\, y^2+2289602359825472784688585113600000)t^4+$
$(-1923782823358576459776000\, y^4+2037883045985360994631680 00\, y^2+50070786439860319638100377600 0)t^2+1631898532917964858982400 0, \quad \mathbf{c}_7 =$
$(2777681756160\, y^{26}+3831446498181120\, y^{24}+3282551541029928960\, y^{22}+2056323812821460582400\, y^{20}+1019791990583597664829440\, y^{18}+$
$415426232781608404238991360\, y^{16}+141700676533649013283781345280\, y^{14}+40809794841690915825729027440640\, y^{12}+9923648674129265514585283016785920\, y^{10}+$
$2020570627637843037872649962174545920\, y^8+337939470383743397170174921561394380800\, y^6+44744941408523904971809965718217246638080\, y^4+$
$4331917039415060088118280070889100216893440\, y^2 + 260486264172298997826189324702254465789460480)t^{13} + (-410512124805120\, y^{22} -$
$1861503451586887680\, y^{20}-1505522791529997926400\, y^{18}-534463415613771271372800\, y^{16}+95843999811186878054400 00\, y^{14}+115056964688537248578687467520\, y^{12}+$
$69582000420183938053118707630080\, y^{10}+25175443157236388796230106139852800\, y^8+6310253675177214018244595247218688000\, y^6+1104337912146875744323964475816699494400\, y^4+$
$124786563292557133286495448178841742213120\, y^2 + 6343164236286337986173195818087611031879680)t^{11} + (215156648941977600\, y^{18} +$
$3098255744764477440000\, y^{16}+386204728405841569382400\, y^{14}+349878521310737698337587200\, y^{12}+203703770190702632636724019200\, y^{10}+$
$780135685293209099666517393408000\, y^8+20035876589320526653990150707609600\, y^6+339612973396031774304794021159859200\, y^4+365298409306465754959621603483818393600\, y^2+$
$303059289333421310819396152871664746496000)t^9+(-92947672342934323200\, y^{14}-100898273238729936076800\, y^{12}-50108441151286139682816000\, y^{10}-$
$6272989787642181168660480000\, y^8-542372760659523158464580812800\, y^6-25418798905895408848291397369856000\, y^4-223410307683078102831587282386944000\, y^2-$
$209616472658185615088814715683471360000)t^7+(202697423917091389440000\, y^{10}+184172107840305097605120000\, y^8+576268030911474930348195840000\, y^6+$
$271355449145428512885178368000\, y^4-1344763698739609307743353868288000\, y^2+1384444748763299855759856359178240000)t^5+(-4275072940796836577280000\, y^6-$
$89157383261859543515136000\, y^4+199304961897368305274978304000\, y^2+747723744168580773262298972160000)t^3+(108793235527864323932160000\, y^2+$
$40502925538959049768304640000)t, \quad \mathbf{c}_6 = (115736739840\, y^{28}+147363326853120\, y^{26}+127113872057303040\, y^{24}+81006695656602992640\, y^{22}+$
$41569376769959987773440\, y^{20}+17751728676140123695349760\, y^{18}+6433560435325856251694284800\, y^{16}+1998374079032793841861090344960\, y^{14}+$
$533625236747667820940530758451200\, y^{12}+122126694449577041922820433887887360\, y^{10}+23720751286551219224449704557517 20960\, y^8+$
$3834076900353743269712530019169274429440\, y^6+499019855030656431719507753264185564200960\, y^4+47984311821212973283777177708310033171742720\, y^2+$
$3125835170067587973914271896427053589473525760)t^{14}+(-19955450511360\, y^{24}-110886569214477120\, y^{22}-96390178726005964800\, y^{20}-$
$42708263804753412096000\, y^{18}-7396760685428347313848320\, y^{16}+3512337554680678807932764160\, y^{14}+34351176542120023682238853920\, y^{12}+$
$1563480393318528409741221376819200\, y^{10}+486374176295986676092755440880844800\, y^8+110588525404423720676521985549417840640\, y^6+$
$18147349559607020428038393287846878248960\, y^4+2006696863846682246701850326955980247531520\, y^2+97468133386838851982661301595004754880102400)t^{12}+$
$(12550804521615360\, y^{20}+18742534752278937600\, y^{18}+26559201553581028147200\, y^{16}+27115864946581620916224000\, y^{14}+17963561664611700619345920000\, y^{12}+$
$8019001554608929929937173872640\, y^{10}+25049854038024471940668809520128000\, y^8+548621352410841435877395685126963200\, y^6+81177753979650445226869146538475520000\, y^4+$
$7281945703172778394791942300183507763200\, y^2+633230979605058377617473768021740790743040)t^{10}+(-6777434441672294400\, y^{16}-7207019517052138291200\, y^{14}-$
$3876939711112410877132800\, y^{12}+515033706985381220371660800\, y^{10}+183198138119098822450741248000\, y^8-511199176151591263810486901145600\, y^6-$
$113878088864257655392999478761881600\, y^4+9909801722490945609216094249785753600\, y^2-389016259326959421441989220102674841600)t^8+$
$(19706693991939440640000\, y^{12}+17840649222666338697216 00\, y^{10}+490365607940227489333248000\, y^8-44662345472014973304569856000\, y^6-$

$$
\begin{gathered}
1820110335062374240165350604800000\,y^4-292910505847489751706092678676480000\,y^2+63909811971727911153578977649491968000)t^6+(-623448137199538667520000\,y^8-\\
47880816936924569665536000\,y^6+28173733110747615750782976000\,y^4+3190835758082038830954499276800\,y^2+633437958704572298052317793484800 0)t^4+\\
(3173136036229376114688000\,y^4+187230504849905041381785600 0\,y^2+67402981745965814897442816000 0)t^2-30647850496264218083328000,\quad \mathbf{c}_5=\\
(3857891328\,y^{30}+4385813299200\,y^{28}+3848783360163840\,y^{26}+2466550028005539840\,y^{24}+1302817744347023278080\,y^{22}+577974816639164721659904\,y^{20}+\\
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$$

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$18995475822735074965585920000\, y^{8}+25344947654615336154134740992000\, y^{6}+2996874940684462536351843090432000\, y^{4}-2505338697728524963401994050994176000\, y^{2}+$
$104829056553375375606485906180014080000)t^{7}+(-739001024697729024000\, y^{10}+870677570916597104640000\, y^{8}-984446106849699126312960000\, y^{6}+$
$3075929722534154251272192000000\, y^{4}-199684008143921582419979796480000\, y^{2}-153112459270177668627739906670592000)t^{5}+(15115930050635366400000\, y^{6}+$
$46145911258579646545920000\, y^{4}-140506463684236774358384640000\, y^{2}-25958172136690406094431846400000)t^{3}+(-544173481822873190400000\, y^{2}-$
$783609813824937394176000000)t, \quad \mathbf{c}_0 = (y^{40} + 829440\, y^{36} + 309586821120\, y^{32} + 68475651442606080\, y^{28} + 9939377758197157724160\, y^{24} +$
$989294098531086060327272448\, y^{20}+68380008090468668489821071605760\, y^{16}+3240977937746190422411267979010375680\, y^{12}+100807377775657506898680079219138725150720\, y^{8}+$
$1858081587160919167156471220167164981978071040\, y^{4}+15411671916547527940062634888554533226518912434176)t^{20}+(-360\, y^{36}-4976640\, y^{34}-$
$2418647040\, y^{32}-1651129712640\, y^{30}-1277974397583360\, y^{28}-293349690780124446720\, y^{24}+79515022065577261793280\, y^{22}-36497395128099963163115520\, y^{20}+$
$16488234975518101005454540800\, y^{18}-2552378774210202035644362915840\, y^{16}+1641120194171248043755705718538240\, y^{14}-88620490485247394362808108801064960\, y^{12}+$
$90747382256893331827515503412290519040\, y^{10}-350025617276588565620416941733120573440\, y^{8}+2688196740684200183964802112510366004019200\, y^{6}+$
$70161934931857624801481335136520552704901120\, y^{4}+33445468568896545008816481963008969675605278720\, y^{2}+1538491554169241070405558170298412605077842821120)t^{18}+$
$(524880\, y^{32}+716636160\, y^{30}+2515392921600\, y^{28}+4175409839918284800\, y^{24}-103535184981220392960\, y^{22}+1492770297059235625697280\, y^{20}-$
$28625407943607814245580800\, y^{18}+236696341933707114043146240000\, y^{16}-3561458754711909817178180812800\, y^{14}+19432743549210064726451025786961920\, y^{12}-$
$236321307960659718300821623469506560\, y^{10}+821511946798243345743231168585872179200\, y^{8}-8167264403120399864476395307106146713600\, y^{6}+$
$14932092833019268209366986734334923662950400\, y^{4}-116130099197557447947279451260447811373629440\, y^{2}+40195530584754571670752100067522498711697489920)t^{16}+$
$(-755827200\, y^{28}-2779315686604800\, y^{24}-4069308244584038400\, y^{22}-9395009168413084876800\, y^{20}+10769729941746545275699200\, y^{18}+$
$4318970241491608692326400000\, y^{16}+819259175346055643708522496000\, y^{14}-173537642602642043201096201011200\, y^{12}-30514578610371643313582653204070400\, y^{10}-$
$46292667152176496966759579542722969600\, y^{8}-1265500604129332791500899793679207628800\, y^{6}+253674381604210961415650955280872426700800\, y^{4}+$
$46749421443461168824262886737875583788646400\, y^{2}+78377736220573711613723761592880358804684800)t^{14}+(714256704000\, y^{24}-292559545958400\, y^{22}+$
$3515102944690176000\, y^{20}-8241472623939158016000\, y^{18}+3734971133050075742208000\, y^{16}+1388779557264097863008256000\, y^{14}-2460124362217543653021607526400\, y^{12}-$
$849704701228349817215094305587200\, y^{10} + 75831943176255521980334714388480000\, y^{8} - 77027514863609562478715068873703424000\, y^{6} +$
$281577761565235275682453576948383744000\, y^{4}+812387581097882274019636445703714530918400\, y^{2}+17077558446665307982248318921643942477824000)t^{12}+$
$(-99424533196800\, y^{20}-921562569768960000\, y^{18}+516127699788890112000\, y^{16}+1742788355941698895872000\, y^{14}-1770000314481841211965440000\, y^{12}-$
$1692378844826005865408495616000\, y^{10}-762246513907490849854442176512000\, y^{8}+8550839878891125976681238495232000\, y^{6}-43296695260399539003892405263925248000\, y^{4}+$
$912652582481664962883231632980967424000\, y^{2}+127960954009264970947967361215101717708800)t^{10}+(37952744223744000\, y^{16}-51186218160881664000\, y^{14}+$
$15048748139299209216000\, y^{12}-700050564870897156489216000\, y^{10}+1265054111102525062936264704000\, y^{8}-149575181220536202709979627520000\, y^{6}+$
$18822613842520643864361883926528000\, y^{4}-26728222638946563171224213218394112000\, y^{2}+986879996113586319150766693854216192000)t^{8}+$
$(-10263903120801792000\, y^{12}+25797853953084358656000\, y^{10}-141243250393136863641600000\, y^{8}+117093363350575533816545280000\, y^{6}-$
$18933461909488492660874280960000\, y^{4}-22017588405210209231139080503296000\, y^{2}-1713239420935328354202115104571392000)t^{6}+(314915209388236800000\, y^{8}+$
$2321806855777592279040000\, y^{6}+3507089255652053137489920000\, y^{4}-8516313249172823596565790720000\, y^{2}+184989088234701892457815080960000)t^{4}+$
$(-22673895075953049600000\, y^{4} + 104481308509991652556800000\, y^{2} - 93155534667508557419642880000)t^{2} + 81626022273430978560000$