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Supplement to
COMPUTATION OF THE ZEROS OF p-ADIC L-FUNCTIONS

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Here we present two supplementary sections, one (§11) providing further details of the computations and another (§12) giving the proofs of some propositions. These are followed by the numerical tables from Programs A and B as announced in the main text.

11. Details of the computations

As mentioned before, our computation of $L_p(s,\theta)=\sum_{i=0}^{\infty} u_i s^i$, i.e., the approximation of u_i by $\overline{u}_i \mod p^M$, was based on the expression given in (5.1). To study the structure of this expression, we write it in the form

$$L_p(s,\theta)=-\frac{1}{dp}\sum_{\substack{a=1\\ p\nmid a}}^{dp}\theta(a)\Big(S_1(a)+S_2(a)+S_3(a)\Big),$$

where

$$S_1(a)=\sum_{j=1}^{\infty}\frac{1}{1-s}\binom{1-s}{j}\tau_1(a)^j \qquad (\tau_1(a)=\langle a\rangle-1),$$

$$S_2(a)=\sum_{j=1}^{\infty}\frac{1}{1-s}\binom{1-s}{j}B_j\tau_2(a)^j \qquad (\tau_2(a)=dp/a),$$

$$S_3(a)=(1-s)\,S_1(a)\,S_2(a)$$

(note that the sum of $\theta(a)$ with $a=1,\dots,dp$, $p\nmid a$, vanishes). Setting, moreover,

$$\frac{1}{1-s}\binom{1-s}{j}=\sum_{i=0}^{j-1}\frac{c_{ji}}{j!}s^i$$

with $c_{ji}\in\mathbf{Z}$, we have

$$S_\nu(a)=\sum_{i=0}^{\infty}R_{\nu i}s^i, \qquad R_{\nu i}=\sum_{j=i+1}^{\infty}\frac{c_{ji}}{j!}b_{\nu j}\tau_\nu(a)^j \qquad (\nu=1,2),$$

where $b_{1j}=1$ and $b_{2j}=B_j$. Note that $v_p(\tau_\nu(a))\ge 1$.

From this it is seen that the principal task is the calculation of (rational) numbers $\overline{R}_{\nu i}$ satisfying

$$R_{\nu i}\equiv\overline{R}_{\nu i} \pmod{p^{M+1}}. \tag{11.1}$$

These numbers are computed from the series of $R_{\nu i}$ by way of truncations of two kinds: the truncation of the series itself and that of the p-adic expansions of c_{ji}, $j!$, $b_{\nu j}$, and $\tau_\nu(a)$. Let η_1 and η_2 be parameters such that the series for $R_{\nu i}$ are computed up to $j=\eta_1$ and the above p-adic numbers are computed mod p^{η_2}. An optimal choice appears to be $\eta_1=\eta_2-1=\eta$, say. Between M and η there is the following relationship, proved in the next section.

PROPOSITION 12. *If* $p-1 \nmid \eta+1$, *then* (5.3) *and* (5.4) *are satisfied with*

$$M = \eta - \left[\frac{\eta}{p-1}\right], \qquad i_M = \eta - 1.$$

In particular, to obtain

$$\overline{L}_p(s,\theta) = \sum_{i=0}^{i_M} \overline{u}_i s^i,$$

we thus have to compute $\overline{R}_{\nu i}$ up to $i = \eta - 1$.

One check for the calculation of $\overline{u}_i$ is provided by Proposition 6. By way of another check, we compared the values of $\overline{u}_0$ with the class number tables of quadratic fields. Let $h(\sqrt{m})$ denote the class number of $\mathbf{Q}(\sqrt{m})$. Since

$$u_0 = L_p(0,\theta) = \frac{\theta\omega^{-1}(p) - 1}{f} \sum_{a=1}^{f} \theta\omega^{-1}(a)a,$$

where f stands for the conductor of $\theta\omega^{-1}$, we have

$$u_0 = \begin{cases} 2\,h(\sqrt{m}) & \text{for } \theta = \theta_m\omega,\ m=-2 \text{ or } m<-3,\ \text{if } \theta_m(p) = -1, \\ h(\sqrt{mp}) & \text{for } \theta = \theta_m\omega^{(p+1)/2},\ m<0,\ p\equiv 1 \pmod 4, \\ h(\sqrt{-mp}) & \text{for } \theta = \theta_m\omega^{(p+1)/2},\ m>1,\ p\equiv 3 \pmod 4. \end{cases}$$

For $m > 0$ and $\theta = \theta_m$, a third check is given by the p-adic class number formula

$$L_p(1,\theta_m) = 2\left(1 - \frac{\theta_m(p)}{p}\right)\frac{h(\sqrt{m})\log\varepsilon_m}{\sqrt{d}},$$

where ε_m denotes the fundamental unit of $\mathbf{Q}(\sqrt{m})$. In fact, we made this check in the cases when $\sqrt{d} \in \mathbf{Z}_p$ and ε_m is included in the table by Ince [6].

The Iwasawa series $f_\theta(T)$ was computed in the way described in §6. Checks were provided by the facts that all its coefficients are integral and the number of the first coefficients vanishing mod p is λ_θ. A final check was obtained upon converting the zeros T_0 of $f_\theta(T)$ into the zeros s_0 of $L_p(s,\chi)$: then we verified that $L_p(s_0,\chi)$ vanishes to the expected accuracy.

In the computation of T_0 by the Newton algorithm note that the convergence in fact is faster than indicated by (7.4). It is easy to see that the number of correct places in t_n grows exponentially in n. Working with the polynomial $\overline{f}_\theta(T)$ (see Proposition 10), we ran the algorithm until the desired number of places of $\overline{T}_0$ remained the same on two successive iterations. Then $\overline{f}_\theta(\overline{T}_0)$ was checked to make sure it vanishes. In view of (8.1), one concludes that this quantity should be congruent to 0 (mod $\pi^{\rho M-\gamma}$), but its actual value was much closer to 0.

In order to do the computations implied by the Newton algorithm, we had to prepare computer programs which perform arithmetic in various extensions of $\mathbf{Q}_p$. These programs were also required in the computation, according to (8.2), of the approximate zeros $\overline{s}_0$ of $L_p(s,\theta\psi_n)$.

If $\overline{s}_0$ approximates a zero s_0 of $L_p(s,\theta)$, our check about the vanishing of $L_p(\overline{s}_0,\theta)$ is based on the formula

$$\overline{L}_p(\overline{s}_0,\theta) - L_p(s_0,\theta) = \sum_{i=0}^{i_M}\left((\overline{u}_i - u_i)\overline{s}_0^i + u_i(\overline{s}_0^i - s_0^i)\right) - \sum_{i>i_M} u_i s_0^i.$$

If $v_\pi(s_0) \geq 0$, this implies by (5.3), (5.4), and Proposition 11 that $\overline{L}_p(\overline{s}_0,\theta) \equiv 0 \pmod{\pi^{M_1}}$ with

$$M_1 = \min\left(eM,\ \rho M - \gamma - e + \min_{i>0} v_\pi(u_i)\right).$$

In the case $v_\pi(s_0) < 0$, this estimate has to be modified. In particular, when estimating $v_\pi(\sum_{i>i_M} u_i s_0^i)$ it suffices for the present purpose to look at the numbers $v_\pi(u_i)$ just for a few values of i near i_M.

There is a useful way for checking that the theoretical estimates for the number of correct digits (both for the coefficients and for the zeros) are good enough: run the same example anew with a bigger η. We applied this check in several cases that did not require too much computation time.

12. PROOFS

This section contains the proofs of Propositions 7, 9, 11, and 12.

PROOF OF PROPOSITION 7. For $j = 0$, the assertion follows from (5.3), since $a_0 = u_0$ and $\overline{a}_0 = \overline{u}_0$. If $0 < j < M$, it is enough to show (see (6.3)) that, for $i = 1,\dots,j$,

$$p^{j-i} \sum_{t_1+\cdots+t_i=j} e_{t_1}\cdots e_{t_i} \equiv p^{j-i} \sum_{t_1+\cdots+t_i=j} \overline{e}_{t_1}\cdots\overline{e}_{t_i} \pmod{p^M}.$$

Since $e_j \equiv \overline{e}_j \pmod{p^M}$ and je_j is integral, we have

$$p^S e_{t_1}\cdots e_{t_i} \equiv p^S \overline{e}_{t_1}\cdots\overline{e}_{t_i} \pmod{p^M}$$

with $S = v_p(t_1) + \cdots + v_p(t_i)$, for any set $\{t_1,\dots,t_i\}$ of positive indices t_k. Hence, we are done once we prove that $S \leq j - i$ whenever $t_1 + \cdots + t_i = j$.

In a set $\{t_1,\dots,t_i\}$ summing up to j, every t_k satisfies $1 \leq t_k \leq j - i + 1$. Setting

$$n_t = \operatorname{card}\{k \in \mathbf{Z} : 1 \leq k \leq i,\ t_k = t\},$$

we find that

$$S = \sum_{t=1}^{j-i+1} v_p(t)n_t \leq \sum_{t=1}^{j-i+1}(t-1)n_t = \sum_{t=1}^{j-i+1} tn_t - \sum_{t=1}^{j-i+1} n_t = j - i. \square$$

PROOF OF PROPOSITION 9. Let $n \geq 0$. Note that $t_n \equiv 0 \pmod{\pi^w}$. The assumptions imply that $c_j t_n^j \equiv \bar{c}_j t_n^j \pmod{\pi^{N+\gamma+1}}$ for $j = 0, \ldots, N'$ and $t_n^{N'+1} \equiv 0 \pmod{\pi^{N+\gamma+1}}$. Consequently,

$$(12.1) \qquad f(t_n) \equiv \bar{f}(t_n) \pmod{\pi^{N+\gamma+1}}, \qquad f'(t_n) \equiv \bar{f}'(t_n) \pmod{\pi^N}.$$

Recalling that

$$(12.2) \qquad v_\pi(f'(t_n)) = \gamma, \qquad f(t_n) \equiv 0 \pmod{\pi^{2\gamma+n+1}}$$

(see (7.2) and (7.3)), we thus find, since $N > \gamma$, that

$$(12.3) \qquad v_\pi(\bar{f}'(t_n)) = \gamma, \qquad \bar{f}(t_n) \equiv 0 \pmod{\pi^{2\gamma+n+1}}.$$

For $n = 0$, this is our assertion (i).

To prove (ii), we suppose that t_n is given in the form $x_w\pi^w + \cdots + x_{\gamma+n}\pi^{\gamma+n}$ (with the coefficients x_i in a fixed residue system mod π), and similarly for $\bar{t}_n$. This is no restriction, for the higher powers of π do not affect the algorithm. We show that in fact $t_n = \bar{t}_n$ for $n = 1, \ldots, N - \gamma$. Then the assertion, i.e., the congruence (7.6), follows from (7.4).

For t_n and $\bar{t}_n$ modified in this way, we have to replace the recursive equations by the congruences

$$t_n \equiv t_{n-1} - \frac{f(t_{n-1})}{f'(t_{n-1})}, \qquad \bar{t}_n \equiv \bar{t}_{n-1} - \frac{\bar{f}(\bar{t}_{n-1})}{\bar{f}'(\bar{t}_{n-1})} \pmod{\pi^{\gamma+n+1}} \qquad (n = 1, 2, \ldots).$$

Since $t_0 = \bar{t}_0$, our claim is obtained by induction once we know that

$$\frac{f(t_{n-1})}{f'(t_{n-1})} \equiv \frac{\bar{f}(t_{n-1})}{\bar{f}'(t_{n-1})} \pmod{\pi^{N+1}} \quad (n = 1, \ldots, N - \gamma).$$

In view of (12.2) and (12.3), this follows from (12.1).□

PROOF OF PROPOSITION 11. Let us first verify that

$$e_j T_0^j \equiv \bar{e}_j \bar{T}_0^j \pmod{\pi^{\rho M - \gamma}}$$

for $j = 1, \ldots, J$. Since $e_j \equiv \bar{e}_j \pmod{\pi^{\rho M}}$ and $v_\pi(\bar{T}_0) > 0$, this assertion reduces to the form

$$e_j T_0^j \equiv e_j \bar{T}_0^j \pmod{\pi^{\rho M - \gamma}}.$$

By (8.1), $T_0 = \bar{T}_0 + \pi^{\rho M - \gamma}\tau$ with $v_\pi(\tau) \geq 0$. Hence,

$$e_j(T_0^j - \bar{T}_0^j) = \pi^{\rho M - \gamma} \sum_{k=1}^{j} e_j j(j-1)\cdots(j-k+1)\bar{T}_0^{j-k}\tau^k \frac{\pi^{(\rho M-\gamma)(k-1)}}{k!}.$$

The sum $\sum_{k=1}^{j}$ on the right-hand side is π-integral, since $v_p(je_j) = 0$, $v_p(k!) < \frac{k}{p-1} \leq \frac{k}{2} \leq k - 1$ $(k = 2, 3, \ldots)$, and $e \leq \rho M - \gamma$. This proves the claim.

We have $e_j T_0^j \to 0$ as $j \to \infty$. Therefore, to obtain the congruence of Proposition 11, simply choose J so that

$$v_\pi(e_j T_0^j) \geq \rho M - \gamma \qquad \text{for all } j > J.□$$

REMARK. In fact, $v_\pi(e_j T_0^j) \geq j - v_p(j)$, which easily yields an effective bound for J.

PROOF OF PROPOSITION 12. By Proposition 6,

$$v_p(u_i) \geq \eta - \left[\frac{\eta - 1}{p - 1}\right] \qquad \text{for all } i \geq \eta.$$

Hence, with the M and i_M given in Proposition 12, we have $v_p(u_i) \geq M$ for all $i > i_M$. This proves the second assertion in (5.4); the first is trivial.

To prove (5.3), it suffices to show that (11.1) holds for $\nu = 1, 2$ and for $i = 0, \ldots, \eta - 1$. We may write

$$\bar{R}_{\nu i} = \sum_{j=i+1}^{\eta} \bar{r}_{\nu i j},$$

where $\bar{r}_{\nu i j}$ approximates

$$r_{\nu i j} = \frac{c_{ji}}{j!} b_{\nu j} \tau_\nu(a)^j.$$

Thus, the assertion follows once we prove that

$$(12.4) \qquad r_{\nu i j} \equiv \bar{r}_{\nu i j} \pmod{p^{M+1}} \qquad \text{for } j = i + 1, \ldots, \eta,$$

$$(12.5) \qquad r_{\nu i j} \equiv 0 \pmod{p^{M+1}} \qquad \text{for all } j > \eta.$$

Note that $r_{\nu i j}$ is expressed as a p-adic integer divided by $j!$ and by the denominator of $b_{\nu j}$. The latter equals either 1 or D_j, the denominator of the Bernoulli number B_j. Staudt's theorem tells us that $v_p(D_j) = 1$ or 0 according to whether or not $p - 1$ divides j.

Since the numerator of $r_{\nu i j}$ is computed mod $p^{\eta+1}$, it is enough for (12.4) to verify that

$$v_p(j!) + v_p(D_j) \leq \eta - M = \left[\frac{\eta}{p - 1}\right] \quad (j = i + 1, \ldots, \eta).$$

If $p - 1 \nmid j$, we obtain this estimate by using the inequality $v_p(j!) \leq \left[\frac{j-1}{p-1}\right]$. In the remaining case, say $j = k(p - 1)$, the same inequality yields $v_p(j!) + v_p(D_j) \leq k$, proving the claim.

We prove (12.5) by establishing the estimate

$$v_p(r_{\nu i j}) \geq \eta + 1 - \left[\frac{\eta}{p - 1}\right]$$

separately for $j = \eta + 1$, $j = \eta + 2$, and $j \geq \eta + 3$. Since $v_p(\tau_\nu(a)) \geq 1$, we know that

$$v_p(r_{\nu i j}) \geq j - \left[\frac{j - 1}{p - 1}\right] - v_p(D_j).$$

Hence, if $j = \eta + 1$, we only have to observe that $v_p(D_j) = 0$ by the assumption in the proposition. For $j = \eta + 2$, the same assumption implies that $\left[\frac{j-1}{p-1}\right] = \left[\frac{\eta+1}{p-1}\right] = \left[\frac{\eta}{p-1}\right]$. If $j \geq \eta + 3$, then

$$v_p(r_{\nu i j}) \geq \eta + 2 - \left[\frac{\eta + 2}{p - 1}\right].$$

This yields the desired estimate. □

REMARK. The above proof can be simplified if one is satisfied with a weaker value of M. However, we found it important to have as sharp an estimate as possible, since for large conductors d even a small increase in η causes a considerable growth in computation time.

13. TABLES

Tables I–V belong to Program B; they are described in §10 of the article.

We now explain how to read the remaining tables which expose the main results from Program A. These tables list the first coefficients of the Iwasawa power series $f_\theta(T) = \sum_{j=0}^{\infty} a_j T^j$ for $p = 3, 5, 7, 11$ and for $\theta = \theta_m \omega^t$, where m ranges through the values given in [3, p. 287], excluding those values for which $\lambda_\theta = 0$ or 1.

For each prime p there are two tables, the first for $m > 0$, and the second for $m < 0$. Every line in the tables gives data associated with a fixed character θ. These data are arranged under 8 column headings as follows.

disc: The discriminant of $\mathbf{Q}(\sqrt{m})$, in absolute value equal to the conductor of θ_m. The characters in each table are ordered according to the increasing value of $|m|$; thus, to find a specific discriminant one has to think about the corresponding m (which is not printed).

t: The exponent t. Together with the discriminant, this identifies θ.

lambda: The λ-invariant λ_θ of $f_\theta(T)$.

ch: The value of $\theta_m(p)$. Note that $f_\theta(0) = 0$ if and only if $t = 1$ and $\theta_m(p) = 1$. This can happen for $m < 0$ only; for this reason, there are many more characters in the tables with $m < 0$ than with $m > 0$ (cf. [3, p. 288]).

a(0), a(1), a(2), a(3): The coefficients a_0, a_1, a_2, a_3, respectively, of $f_\theta(T)$, written in the "decimal" form with decimal point (which is omitted) after the first digit. Thus, on the first line of the first table one has $a_0 = 0.110$, $a_1 = 0.01$, $a_2 = 2.1$, $a_3 = (0.)$. The given values are approximations; however, as remarked above, one can decide whether $a_0 = 0$ (exactly) by looking at the entries under t and ch.

TABLE I. $\lambda = 2$, $a_0 = 0$

(3, −47, 1)	
0	0
0.0020	0.0100
0.0120	1.1222
0.0012	1.002
0 0010	2.00
0.0000	1.1
0.0001	1.
$T_1 = 0$, $s_1 = 0$	
$T_2 = 0.02000$	
$s_2 = 0.1002$	

(5, −51, 1)	
0	0
0.0004	0.0041
0.0342	3.2432
0.0044	1.3321
0.0004	2.4432
0.0000	2.113
0.0000	4.00
$T_1 = 0$, $s_1 = 0$	
$T_2 = 0.0021234$	
$s_2 = 0.022013$	

(7, −1067, 1)	
0	0
0.0001	0.00545
0.0601	3.13201
0.0031	1.40641
0.0003	1.3530
0.0000	3.656
0.0000	5.00
$T_1 = 0$, $s_1 = 0$	
$T_2 = 0.0034003$	
$s_2 = 0.010110$	

(11, −19, 1)	
0	0
0.024α	0.3575
0.0135	5.9641
0.0016	8.1631
0.0001	0.6982
0.0000	7.044
0.0000	4.89
$T_1 = 0$, $s_1 = 0$	
$T_2 = 0.6746700$	
$s_2 = 9.832164$	

TABLE II. $\lambda = 2$, $a_0 \neq 0$

(3, 2536, 0)	
0.01100	0.01100
0.00202	0.0212
0.02221	2.100
0.00220	0.02
0.00220	0.2
0.00001	2.
0.00021	
$T_1 = 0.1121$	
$s_1 = 1.210$	
$T_2 = 0.2001$	
$s_2 = 2.121$	

(3, −1399, 1)	
0.0020	0.0020
0.0211	0.211
0.0220	2.11
0 0021	2.0
0.0022	1.
0.0000	
0.0002	
$T_1 = 0.020$	
$s_1 = 0.20$	
$T_2 = 0.221$	
$s_2 = 2.22$	

(3, 2732, 0)	
0.01100	0.01100
0.01120	0.2221
0.01212	1.202
0.00220	2.21
0.00110	2.2
0.00000	1.
0.00011	
$\pi = \sqrt{3}$	
$T_{1,2} = 0.2021 \pm 0.121\pi$	
$s_{1,2} = 1.102 \pm 2.02\pi$	

(3, 2908, 0)	
0.01100	0.01100
0.00001	0.0001
0.01121	1.001
0.00211	1.10
0.00121	2.0
0.00001	0.
0.00011	
$\xi = \sqrt{2}$	
$T_{1,2} = 0.0220 \pm 0.1121\xi$	
$s_{1,2} = 0.112 \pm 1.111\xi$	

(3, −1207, 1)	
0.01100	0.01100
0.02222	0.2121
0.01111	1.221
0.00012	1.22
0.00102	0.2
0.00001	2.
0.00010	
$\pi = \sqrt{2 \cdot 3}$	
$T_{1,2} = 0.2220 \pm 0.102\pi$	
$s_{1,2} = 2.120 \pm 1.20\pi$	

(5, 37, 2)	
0.30230	0.30230
0.04414	0.22030
0.01241	4.04232
0.00040	1.0320
0.00031	0.310
0.00002	2.40
0.00003	4.3
$\pi = \sqrt{2 \cdot 5}$	
$T_{1,2} = 0.024 \pm 2.42\pi$	
$s_{1,2} = 3.42 \pm 12.1\pi$	

(5, −184, 3)	
0.40000	0.40000
0.02334	0.23032
0.04201	4.14342
0.00222	3.3221
0.00001	4.240
0.00002	0.22
0.00002	3.0
$\pi = \sqrt{5}$	
$T_{1,2} = 0.234 \pm 2.14\pi$	
$s_{1,2} = 0.34 \pm 20.2\pi$	

(5, 597, 0)	
0.03240	0.0324003
0.02404	0.111024
0.02002	3.32434
0.00034	2.1000
0.00022	1.002
0.00001	0.20
0.00001	4.1
$\pi = \sqrt{5}$	
$T_{1,2} = 0.440344 \pm 0.22230\pi$	
$s_{1,2} = 2.12411 \pm 1.1442\pi$	

(5, 2504, 2)	
0.01023	0.01023
0.00023	0.00303
0.01201	1.32313
0.00040	4.2043
0.00003	3.323
0.00004	1.20
0.00003	1.2
$T_1 = 0.331200$	
$s_1 = 2.41303$	
$T_2 = 0.204143$	
$s_2 = 3.00334$	

(5, 313, 2)	
0.03112	0.031123
0.01131	0.20324
0.02231	3.2431
0.00212	3.302
0.00013	1.02
0.00000	3.1
0.00001	1.

$\xi = \sqrt{2}$
$T_{1,2} = 0.342122 \pm 0.301310\xi$
$s_{1,2} = 1.12302 \pm 1.23212\xi$

(5, −1163, 3)	
0.02000	0.0200000
0.04301	0.340314
0.01201	4.10230
0.00331	0.2001
0.00003	1.320
0.00004	3.40
0.00003	0.0

$\xi = \sqrt{2}$
$T_{1,2} = 0.421433 \pm 0.304100\xi$
$s_{1,2} = 3.30113 \pm 1.10214\xi$

(5, −6568, 3)	
0.04000	0.0400000
0.02143	0.404222
0.04431	1.11400
0.00031	4.3340
0.00032	1.320
0.00000	3.12
0.00002	1.2

$\pi = \sqrt{2\cdot 5}$
$T_{1,2} = 0.321140 \pm 0.23424\pi$
$s_{1,2} = 1.31000 \pm 4.2124\pi$

(7, 24, 0)	
0.45121	0.45121
0.06326	0.22411
0.05456	6.04132
0.00243	6.6232
0.00061	3.060
0.00006	3.03

$\pi = \sqrt{7}$
$T_{1,2} = 0.630 \pm 2.66\pi$
$s_{1,2} = 6.02 \pm 32.2\pi$

(7, 3352, 0)	
0.02350	0.02350035
0.04360	0.3006640
0.04060	4.165155
0 00032	3.53524
0.00042	3.0133
0.00001	4.266

$\xi = \sqrt{3}$
$T_{1,2} = 0.4304212 \pm 0.5563426\xi$
$s_{1,2} = 3.010215 \pm 2.520260\xi$

(7, −136, 3)	
0.63342	0.63342
0.01316	0.24356
0.05650	6.61264
0.00533	6.2006
0.00013	0.364
0.00005	4.32

$\pi = \sqrt{-7}$
$T_{1,2} = 0.512 \pm 6.13\pi$
$s_{1,2} = 4.54 \pm 54.5\pi$

(7, −3572, 3)	
0.05342	0.05342
0.05234	0.66241
0.05433	3.51631
0.00336	0.40104
0.00024	1.4620
0.00000	6.115

$T_1 = 0.4431412$
$s_1 = 2.150160$
$T_2 = 0.1105266$
$s_2 = 4.443226$

(11, 21, 4)	
0.69140	0.69140
0.09899	0.25α28
0.01732	1.958α1
0.00α41	0.3α2α
0.00083	1.669
0.0000α	7.96

$\pi = \sqrt{11}$
$T_{1,2} = 0.\alpha 33 \pm 4\ 16\pi$
$s_{1,2} = 9.63 \pm 77.2\pi$

(11, −479, 5)	
0.26270	0.26270
0.030α2	0 62α42
0.06204	2.16746
0.00591	5.37260
0.00098	7.0227
0.0000α	5.303

$\pi = \sqrt{-11}$
$T_{1,2} = 0.84\alpha \pm \alpha.453\pi$
$s_{1,2} = 6.30 \pm 93.\alpha 2\pi$

Table IIa. $\lambda = 3,\ a_0 = 0$

(3, −587, 1)	
0	0
0.000122	0.00221
0.000002	0.0020
0.001120	2.112
0.000011	0.00
0 000001	2.0
0.000001	2.
0.000002	
0.000000	
0.000002	

$T_1 = 0,\ s_1 = 0$
$\pi = \sqrt{2\cdot 3}$
$T_{2,3} = 0.0012 \pm 0.102\pi$
$s_{2,3} = 0.00 \pm 2.12\pi$

(3, −4808, 1)	
0	0
0.0021001	0.012020
0.0000121	0.01121
0.0020211	1.0121
0.0000212	0 021
0.0000220	2.11
0.0000021	0.1
0.0000000	1.
0.0000000	
0.0000010	

$T_1 = 0,\ s_1 = 0$
$\xi = \sqrt{2}$
$T_{2,3} = 0.01222 \pm 0.10200\xi$
$s_{2,3} = 0.0100 \pm 2.2121\xi$

(3, −6392, 1)	
0	0
0.00102	0.0211
0.00021	0.010
0.00202	1.11
0.00022	2.0
0.00001	2.
0.00001	
0.00000	
0.00000	

$T_1 = 0,\ s_1 = 0$
$T_2 = 0.221$
$s_2 = 1.12$
$T_3 = 0.100$
$s_3 = 2.22$

(5, −5556, 1)	
0	0
0.00341	0.03001
0.00412	0.43124
0.00111	1.3220
0.00021	3.341
0.00000	4.44

$T_1 = 0,\ s_1 = 0$
$T_2 = 0.43110$
$s_2 = 4.3412$
$T_3 = 0.20140$
$s_3 = 2.2420$

(5, −519, 1)	
0	0
0.03124	0.20333
0.00433	0.31412
0.00314	2.4200
0.00024	4.400
0.00000	4.20

$T_1 = 0,\ s_1 = 0$
$\pi = \sqrt{5}$
$T_{2,3} = 0.41 \pm 2.43\pi$
$s_{2,3} = 3.0 \pm 33.4\pi$

(7, −580, 1)	
0	0
0.00436	0.0324564
0.00324	0.321434
0.00312	4.54435
0.00064	0.6533
0.00005	4.603

$T_1 = 0,\ s_1 = 0$
$\xi = \sqrt{3}$
$T_{2,3} = 0.425334 \pm 0.615105\xi$
$s_{2,3} = 3.22355 \pm 1.34566\xi$

Table III. $\lambda = 3,\ a_0 \neq 0$

(5, 456, 0)	
0.22332114	0.22332114434020333
0.00403344	0.0432201214040223
0.00044442	0.021234102131121
0.00320313	3.04341101210114
0.00020302	0.3320004231432
0.00001213	1.300311303213
0.00000043	4.03022344002
0.00000104	3.2401324000
0.00000022	1.113323244

$\pi_k = \zeta_3^k \cdot \sqrt[3]{5}\quad (k = 1, 2, 3)$
$T_k = 0.13302 + 1.2230\pi_k + 0.4414\pi_k^2$
$s_k = 3.0403 + 14.343\pi_k + 31.424\pi_k^2$

(5, 1317, 0)	
0.032400	0.032400
0.002111	0.01024
0.004104	0.1023
0.003232	1.244
0.000201	3.30
0.000031	3.4
0.000004	2.
0.000001	
0.000000	

$\pi_k = \zeta_3^k \cdot \sqrt[3]{5}\quad (k = 1, 2, 3)$
$T_k = 0.344 + 0.03\pi_k + 3.12\pi_k^2$
$s_k = 4.3 + (4.)\pi_k + (41.)\pi_k^2$

(5, −2283, 3)	
0.0400000	0.0400000
0.0304413	0.122343
0.0044121	0.32420
0.0024033	1.4034
0.0002342	3.130
0.0000344	1.01
0.0000023	4.2
0.0000044	4.
0.0000002	

$T_1 = 0.134304$
$s_1 = 2.23313$
$\pi = \sqrt{5}$
$T_{2,3} = 0.23 \pm 2.04\pi$
$s_{2,3} = 0.0 \pm 42.1\pi$

(7, 649, 4)	
0.400000	0.40000000
0.055530	0.1460553
0.001000	0.564413
0.003606	4.62125
0.000463	3.0654
0.000030	4.115
0.000006	4.63

$\pi = \sqrt[3]{7}$
$T_1 = 0.35 + 3.1\pi + 2.2\pi^2$
$s_1 = 4.4 + (25.)\pi + (35.)\pi^2$
$T_2 = 0.35 + 6.0\pi + 1.6\pi^2$
$s_2 = 4.4 + (44.)\pi + (56.)\pi^2$
$T_3 = 0.35 + 5.4\pi + 4.5\pi^2$
$s_3 = 4.4 + (14.)\pi + (61.)\pi^2$

(7, −151, 1)	
0.20000	0.20000000
0.02646	0.4252204
0.00352	0.320220
0.00663	6.35605
0.00014	0.3666
0.00001	0.300

$\pi = \sqrt[3]{2 \cdot 7}$
$T_1 = 0.15 + 1.1\pi + 3.0\pi^2$
$s_1 = 3.2 + (23.)\pi + (50.)\pi^2$
$T_2 = 0.15 + 2.6\pi + 5.0\pi^2$
$s_2 = 3.2 + (40.)\pi + (65.)\pi^2$
$T_3 = 0.15 + 4.6\pi + 6.5\pi^2$
$s_3 = 3.2 + (13.)\pi + (30.)\pi^2$

(7, −307, 3)	
0.26641	0.26641426
0.04104	0.3606001
0.00451	0.632566
0.00411	3.51303
0.00036	2.1251
0.00002	6.043

$\pi = \sqrt[3]{3 \cdot 7}$
$T_1 = 0.56 + 3.5\pi + 6.4\pi^2$
$s_1 = 1.1 + (42.)\pi + (20.)\pi^2$
$T_2 = 0.56 + 6.1\pi + 3.3\pi^2$
$s_2 = 1.1 + (10.)\pi + (15.)\pi^2$
$T_3 = 0.56 + 5.6\pi + 5.5\pi^2$
$s_3 = 1.1 + (24.)\pi + (41.)\pi^2$

TABLE IIIa. $\lambda = 4,\ a_0 = 0$

(3, −1460, 1)	
0	0
0.0000110	0.000201
0.0000202	0.00202
0.0001102	0.2112
0.0002120	2.000
0.0000112	1.00
0.0000122	0.2
0.0000012	0.

$T_1 = 0,\ s_1 = 0$
$T_2 = 0.2102$
$s_2 = 1.201$
$\pi = \sqrt{-3}$
$T_{3,4} = 0.0021 \pm 0.122\pi$
$s_{3,4} = 0.022 \pm 2.21\pi$

(5, −311, 1)	
0	0
0.02041033	0.2212421
0.00023400	0.404312
0.00033413	0.21301
0.00042044	4.3044
0.00003233	2.104
0.00000031	3.21
0.00000010	1.3
0.00000040	3.

$T_1 = 0,\ s_1 = 0$
$\pi_k = \zeta_3^k \cdot \sqrt[3]{5} \quad (k = 1, 2, 3)$
$T_{k+1} = 0.3 + 3.2\pi_k + 2.3\pi_k^2$
$s_{k+1} = 1. + (33.)\pi_k + (34.)\pi_k^2$

TABLE IV. $\lambda = 4,\ a_0 \neq 0$

(3, −856, 1)	
0.1100000	0.1100000
0.0220011	0.210200
0.0011010	0.01211
0.0011221	0.2012
0.0002212	1.212
0.0000221	1.12
0.0000011	2.2
0.0000010	2.
0.0000002	
0.0000021	
0.0000001	

$\pi = \sqrt[4]{-3}$
$T_{1,2} = 0.2 \pm (1.)\pi + (1.)\pi^2 \pm (1.)\pi^3$
$3^2 s^*_{1,2} = 0.02 \pm 0.2\pi + 0.0\pi^2 \pm 1.1\pi^3$
$\pi' = \zeta_4 \cdot \sqrt[4]{-3}$
$T_{3,4} = 0.2 \pm (1.)\pi' + (1.)(\pi')^2 \pm (1.)(\pi')^3$
$3^2 s^*_{3,4} = 0.02 \pm 0.2\pi' + 0.0(\pi')^2 \pm 1.1(\pi')^3$

(3, 1937, 0)	
0.1100000	0.1100000
0.0120202	0.220000
0.0010020	0.01202
0.0022110	0.2000
0.0000222	2.000
0.0000002	0.02
0.0000220	0.2
0.0000012	2.
0.0000002	
0.0000012	

$\pi = \sqrt[4]{3}$
$T_{1,2} = 0.1 \pm (1.)\pi + (2.)\pi^2 \pm (1.)\pi^3$
$3^2 s^*_{1,2} = 0.01 \pm 0.1\pi + 0.0\pi^2 \pm 2.2\pi^3$
$\pi' = \zeta_4 \cdot \sqrt[4]{3}$
$T_{3,4} = 0.1 \pm (1.)\pi' + (2.)(\pi')^2 \pm (1.)(\pi')^3$
$3^2 s^*_{3,4} = 0.01 \pm 0.1\pi' + 0.0(\pi')^2 \pm 2.2(\pi')^3$

(5, 1756, 0)	
0.3001343241	0.30013432414211
0.0121430000	0.1400332023303
0.0001042122	0.211140440344
0.0000432013	0.24340021220
0.0004241242	4.0013400011
0.0000030402	3.223011233
0.0000001341	3.01010342
0.0000000440	1.3323343
0.0000004344	2.101040
0.0000000044	1.22322
0.0000000003	3.2041
0.0000000000	1.223
0.0000000004	1.33

$\pi = \sqrt[4]{3 \cdot 5}$
$T_1 = 0.24 + 1.20\pi + 0.31\pi^2 + 3.34\pi^3$
$s_1^* = 1.0 + 42.3\pi + 24.3\pi^2 + 3.0\pi^3$
$T_2 = 0.24 + 2.00\pi + 0.23\pi^2 + 4.40\pi^3$
$s_2^* = 1.0 + 34.2\pi + 30.1\pi^2 + 4.0\pi^3$
$T_3 = 0.24 + 3.44\pi + 0.23\pi^2 + 1.04\pi^3$
$s_3^* = 1.0 + 20.2\pi + 30.1\pi^2 + 1.4\pi^3$
$T_4 = 0.24 + 4.24\pi + 0.31\pi^2 + 2.10\pi^3$
$s_4^* = 1.0 + 12.1\pi + 24.3\pi^2 + 2.4\pi^3$

(5, −11444, 3)	
0.3100000000	0.3100000000
0.0342131400	0.223410241
0.0032114204	0.22340321
0.0004414144	0.2041233
0.0001413002	1.023033
0.0000404113	1.34233
0.0000004302	3.2123
0.0000000324	4.430
0.0000001212	2.10
0.0000000024	2.1
0.0000000021	3.
0.0000000003	
0.0000000001	

$\pi = \sqrt[4]{2 \cdot 5}$
$T_1 = 0.4 + 1.4\pi + 2.2\pi^2 + 0.2\pi^3$
$s_1^* = 4. + (22.)\pi + (11.)\pi^2 + (2.)\pi^3$
$T_2 = 0.4 + 2.4\pi + 3.2\pi^2 + 0.1\pi^3$
$s_2^* = 4. + (41.)\pi + (43.)\pi^2 + (1.)\pi^3$
$T_3 = 0.4 + 3.0\pi + 3.2\pi^2 + 0.4\pi^3$
$s_3^* = 4. + (13.)\pi + (43.)\pi^2 + (4.)\pi^3$
$T_4 = 0.4 + 4.0\pi + 2.2\pi^2 + 0.3\pi^3$
$s_4^* = 4. + (32.)\pi + (11.)\pi^2 + (3.)\pi^3$

(5, −3547, 3)	
0.1010000	0.1010000000
0.0333233	0.423032411
0.0044123	0.42101431
0.0002412	0.1312231
0.0004324	4.101342
0.0000430	3.10401
0.0000034	2.1304
0.0000000	1.014
0 0000004	3.13

$\pi = \sqrt[4]{5}$
$T_1 = 0.3 + 1.0\pi + 3.1\pi^2 + 1.3\pi^3$
$s_1^* = 2. + (12.)\pi + (0.)\pi^2 + (0.)\pi^3$
$T_2 = 0.3 + 2.1\pi + 2.3\pi^2 + 3.2\pi^3$
$s_2^* = 2. + (20.)\pi + (0.)\pi^2 + (0.)\pi^3$
$T_3 = 0.3 + 3.3\pi + 2.3\pi^2 + 2.2\pi^3$
$s_3^* = 2. + (34.)\pi + (0.)\pi^2 + (0.)\pi^3$
$T_4 = 0.3 + 4.4\pi + 3.1\pi^2 + 4.1\pi^3$
$s_4^* = 2. + (42.)\pi + (0.)\pi^2 + (0.)\pi^3$

(7, 492, 0)	
0.115452236	0.1154522362
0.060152232	0.332504443
0.000644104	0.23636204
0.000230066	0.3302406
0.000225460	1.230333
0.000035030	4.13314
0.000001461	4.3201
0.000000641	0.551
0.000000061	6.31
0.000000002	2.4
0.000000006	2.

$\pi = \sqrt[4]{3 \cdot 7}$
$T_{1,2} = 0.2 \pm 2.4\pi + 6.6\pi^2 \pm 2.2\pi^3$
$s_{1,2} = 5. \pm (10.)\pi + (25.)\pi^2 \pm (44.)\pi^3$
$\pi' = \zeta_4 \cdot \sqrt[4]{3 \cdot 7}$
$T_{3,4} = 0.2 \pm 2.4\pi' + 6.6(\pi')^2 \pm 2.2(\pi')^3$
$s_{3,4} = 5. \pm (10.)\pi' + (25.)(\pi')^2 \pm (44.)(\pi')^3$

TABLE V. $\lambda = 5$ OR $\lambda = 6$

(3, −2516, 1)	
0	0
0.02212121	0.1220121
0.00011111	0.112122
0.00112022	0.10010
0.00000020	0.0222
0.00000020	2.122
0.00000010	2.10
0.00000200	2.1
0.00000001	1.
0.00000222	
0.00000000	
0.00000000	
0.00000000	

$T_1 = 0,\ s_1 = 0$
$\pi = \sqrt[4]{3}$
$T_{2,3} = 0.1 \pm (1.)\pi + (0.)\pi^2 \pm (0.)\pi^3$
$3^2 s^*_{2,3} = 0.00 \pm 0.1\pi + 0.1\pi^2 \pm 2.0\pi^3$
$\pi' = \zeta_4 \cdot \sqrt[4]{3}$
$T_{4,5} = 0.1 \pm (1.)\pi' + (0.)(\pi')^2 \pm (0.)(\pi')^3$
$3^2 s^*_{4,5} = 0.00 \pm 0.1\pi' + 0.1(\pi')^2 \pm 2.0(\pi')^3$

(3, −1547, 1)	
0	0
0.01222210	0.2010012
0.00200010	0.100211
0.00200221	0.10122
0.00021010	0.1011
0.00002000	2.102
0.00002220	2.11
0.00000000	1.2
0.00000011	0.
0.00000101	
0.00000012	
0.00000001	
0.00000002	

$T_1 = 0,\ s_1 = 0$
$\pi = \sqrt[4]{-3}$
$T_{2,3} = 0.2 \pm (1.)\pi + (1.)\pi^2 \pm (0.)\pi^3$
$3^2 s^*_{2,3} = 0.02 \pm 0.1\pi + 0.0\pi^2 \pm 2.0\pi^3$
$\pi' = \zeta_4 \cdot \sqrt[4]{-3}$
$T_{4,5} = 0.2 \pm (1.)\pi' + (1.)(\pi')^2 \pm (0.)(\pi')^3$
$3^2 s^*_{4,5} = 0.02 \pm 0.1\pi' + 0.0(\pi')^2 \pm 2.0(\pi')^3$

(5, −16104, 1)	
0	0
0.021302104	0.32423110
0.002234121	0.3022201
0.000202241	0.214110
0.000023004	0.43142
0.000012032	2.0240
0.000004144	3.241
0.000000324	2.32
0.000000014	4.4
0.000000004	0.
0.000000004	

$T_1 = 0,\ s_1 = 0$
$\pi = \sqrt[4]{5}$
$T_2 = 0.1 + 1.1\pi + (3.)\pi^2 + (3.)\pi^3$
$5s^*_2 = 0.0 + 3.3\pi + (0.)\pi^2 + (3.)\pi^3$
$T_3 = 0.1 + 2.3\pi + (2.)\pi^2 + (4.)\pi^3$
$5s^*_3 = 0.0 + 1.0\pi + (0.)\pi^2 + (4.)\pi^3$
$T_4 = 0.1 + 3.1\pi + (2.)\pi^2 + (1.)\pi^3$
$5s^*_4 = 0.0 + 4.4\pi + (0.)\pi^2 + (1.)\pi^3$
$T_5 = 0.1 + 4.3\pi + (3.)\pi^2 + (2.)\pi^3$
$5s^*_5 = 0.0 + 2.1\pi + (0.)\pi^2 + (2.)\pi^3$

(3, −5051, 1)	
0	0
0.00020210	0.0010022
0.00102120	0.121111
0.00021002	0.00002
0.00012101	0.0001
0.00000212	0.012
0.00001101	2.20
0.00000022	1.1
0.00000021	1.
0.00000010	
0.00000022	
0.00000000	
0.00000001	

$T_1 = 0,\ s_1 = 0$
$T_2 = 0.021020$
$s_2 = 0.12222$
$\pi = \sqrt[4]{3}$
$T_{3,4} = 0. \pm (1.)\pi + (1.)\pi^2 \pm (0.)\pi^3$
$3^2 s^*_{3,4} = 0.01 \pm 0.1\pi + 0.2\pi^2 \pm 2.2\pi^3$
$\pi' = \zeta_4 \cdot \sqrt[4]{3}$
$T_{5,6} = 0. \pm (1.)\pi' + (1.)(\pi')^2 \pm (0.)(\pi')^3$
$3^2 s^*_{5,6} = 0.01 \pm 0.1\pi' + 0.2(\pi')^2 \pm 2.2(\pi')^3$

Tables from Program A

p = 3

discr	t	lambda	ch	a(0)				a(1)			a(2)		a(3)
248	0	2	-1	0	1	1	0	0	0	1	2	1	0
77	0	2	-1	0	1	1	0	0	1	0	2	1	2
332	0	2	-1	0	1	1	0	0	2	0	2	1	1
412	0	2	1	0	1	1	0	0	1	2	2	1	2
556	0	2	1	0	1	1	0	0	2	2	2	1	2
604	0	2	1	0	1	1	0	0	1	0	2	0	1
716	0	2	-1	0	1	1	0	0	1	0	2	0	2
181	0	2	1	0	1	1	0	0	2	2	2	1	1
796	0	2	1	0	1	1	0	0	1	2	2	0	0
281	0	3	-1	0	2	0	0	0	1	0	0	2	1
1288	0	2	1	0	2	2	0	0	0	0	1	1	2
1324	0	5	1	0	1	1	0	0	0	0	0	0	0
337	0	2	1	0	1	1	0	0	1	0	2	0	0
401	0	3	-1	0	2	0	0	0	1	0	0	0	2
1672	0	2	1	0	2	2	0	0	0	2	1	0	1
1708	0	2	1	0	2	2	0	0	2	0	2	2	1
469	0	2	1	0	2	2	0	0	2	2	1	2	1
2504	0	3	-1	0	2	2	0	0	2	2	0	0	1
2536	0	2	1	0	0	1	1	0	0	2	2	1	0
653	0	2	-1	0	2	1	1	0	0	2	2	2	1
2716	0	2	1	0	2	2	0	0	0	1	1	2	0
2732	0	2	-1	0	0	1	1	0	2	2	1	2	2
2908	0	2	1	0	0	1	1	0	0	0	1	0	1
733	0	3	1	0	0	1	1	0	2	0	0	1	2
2972	0	2	-1	0	1	2	1	0	2	0	2	0	1
3160	0	2	1	0	2	2	0	0	1	1	2	1	1
3404	0	2	-1	0	2	2	0	0	1	2	2	1	1
3484	0	2	1	0	2	2	0	0	0	2	2	0	0
3512	0	3	-1	0	0	1	1	0	2	1	0	0	1
3580	0	2	1	0	2	2	0	0	2	0	1	2	1
3592	0	2	1	0	2	0	2	0	1	1	2	2	0
3736	0	2	1	0	2	2	0	0	1	2	1	2	2
3740	0	2	-1	0	1	2	1	0	0	2	1	1	0
3916	0	4	1	0	2	2	0	0	1	1	0	0	0
4136	0	2	-1	0	2	2	0	0	1	0	1	1	2
4172	0	3	-1	0	1	2	1	0	1	1	0	2	2
4204	0	4	1	0	0	1	1	0	0	1	0	0	0
4472	0	3	-1	0	1	2	1	0	1	1	0	2	2
1153	0	2	1	0	1	1	0	0	0	2	1	2	2
1165	0	2	1	0	0	1	1	0	1	2	2	1	2
4780	0	2	1	0	1	2	1	0	2	1	2	0	2
4844	0	2	-1	0	2	2	0	0	0	1	2	0	2
4888	0	2	1	0	1	2	1	0	1	0	2	2	2
1241	0	2	-1	0	1	1	0	0	2	2	1	2	0
1249	0	2	1	0	1	1	0	0	1	1	1	1	1
1261	0	2	1	0	1	2	1	0	1	0	2	1	0
5132	0	2	-1	0	2	0	2	0	2	1	1	1	1
1297	0	2	1	0	2	2	0	0	1	1	1	1	1
5368	0	3	1	0	1	2	1	0	0	1	0	0	1
1385	0	2	-1	0	1	1	0	0	1	1	2	1	2
1397	0	3	-1	0	2	0	2	0	0	1	0	1	1
5624	0	3	-1	0	2	2	0	0	0	2	0	2	2
5660	0	2	-1	0	1	2	1	0	1	1	2	0	2
1433	0	2	-1	0	0	2	0	0	2	2	2	2	1
5852	0	2	-1	0	1	2	1	0	1	0	2	2	2
5944	0	2	1	0	1	2	1	0	0	0	1	1	0

[illegible]	0	2	1	0	0	1	1	0	0	0	2	1	2
[illegible]	0	2	1	0	2	0	2	0	2	2	2	1	1
[illegible]	0	2	-1	0	0	2	2	0	1	0	1	1	2
[illegible]	0	2	-1	0	2	2	0	0	0	2	2	2	2
[illegible]	0	3	1	0	2	0	2	0	0	2	0	0	1
[illegible]	0	3	-1	0	1	2	1	0	0	1	0	2	1
[illegible]	0	2	1	0	1	2	1	0	1	0	1	0	1
[illegible]	0	2	-1	0	0	2	2	0	1	0	1	1	2
[illegible]	0	2	1	0	1	0	0	0	0	2	2	2	0
[illegible]	0	2	-1	0	0	2	0	0	2	0	1	1	0
[illegible]	0	3	1	0	2	0	2	0	0	2	0	0	2
[illegible]	0	2	1	0	0	2	2	0	0	2	2	1	2
[illegible]	0	2	-1	0	0	2	0	0	1	1	1	2	0
[illegible]	0	2	-1	0	0	2	2	0	1	2	1	2	1
[illegible]	0	2	-1	0	1	2	1	0	0	0	1	2	1
[illegible]	0	3	-1	0	1	2	1	0	1	0	0	2	1
[illegible]	0	2	-1	0	0	1	1	0	0	2	1	0	0
[illegible]	0	2	1	0	2	1	0	0	2	1	2	1	1
[illegible]	0	3	1	0	0	2	2	0	1	2	0	2	1
[illegible]	0	3	1	0	0	2	2	0	1	0	0	1	1
[illegible]	0	2	-1	0	0	2	2	0	0	1	1	1	1
[illegible]	0	2	-1	0	2	2	0	0	1	2	1	0	2
[illegible]	0	2	1	0	1	2	1	0	2	0	2	0	1
[illegible]	0	3	1	0	2	0	2	0	1	0	0	2	2
[illegible]	0	2	-1	0	1	0	0	0	0	1	1	2	1
[illegible]	0	4	1	0	2	0	2	0	0	2	0	0	0
[illegible]	0	2	-1	0	2	0	2	0	1	2	1	2	2
[illegible]	0	2	-1	0	2	1	0	0	2	2	1	0	1
[illegible]	0	3	1	0	1	2	1	0	0	1	0	1	2
[illegible]	0	2	1	0	1	1	0	0	0	2	1	2	0
[illegible]	0	3	-1	0	2	0	2	0	0	1	0	0	1
[illegible]	0	2	-1	0	1	2	1	0	1	0	2	2	1
[illegible]	0	3	-1	0	0	2	2	0	2	2	0	2	1
[illegible]	0	2	-1	0	2	1	0	0	0	0	1	1	0
[illegible]	0	2	-1	0	1	2	1	0	1	2	2	1	2
[illegible]	0	2	1	0	1	2	1	0	0	2	1	2	0
[illegible]	0	4	-1	0	0	2	2	0	0	1	0	2	0
[illegible]	0	2	-1	0	1	2	1	0	2	0	2	2	1
[illegible]	0	3	1	0	0	2	2	0	0	1	0	0	1
[illegible]	0	2	-1	0	2	1	0	0	1	1	2	1	2
[illegible]	0	2	1	0	0	1	1	0	0	1	1	2	1
[illegible]	0	2	1	0	2	2	0	0	0	1	2	2	0
[illegible]	0	2	-1	0	2	1	0	0	0	0	2	1	1
[illegible]	0	3	-1	0	2	2	0	0	0	2	0	2	1
[illegible]	0	2	1	0	2	0	2	0	1	2	2	0	2
[illegible]	0	2	1	0	2	2	0	0	1	0	1	0	1
[illegible]	0	2	-1	0	2	0	2	0	1	1	2	1	0
[illegible]	0	3	1	0	2	1	0	0	2	1	0	1	1
13564	0	2	1	0	0	1	1	0	1	1	1	2	1
13688	0	2	-1	0	0	2	2	0	1	0	1	1	1
13768	0	2	1	0	1	0	0	0	2	0	1	2	1
13784	0	2	-1	0	0	2	2	0	2	2	2	1	2

1489	0	5	1	0	1	1	0	0	2	2	0	2	0
5980	0	2	1	0	1	2	1	0	0	1	2	2	0
1501	0	2	1	0	2	2	0	0	1	0	1	1	0
6028	0	2	1	0	0	2	2	0	2	2	1	0	2
1541	0	4	-1	0	0	1	1	0	0	1	0	2	0
6184	0	2	1	0	0	1	1	0	0	1	2	1	1
6380	0	4	-1	0	1	2	1	0	1	2	0	0	0
1609	0	4	1	0	1	1	0	0	0	1	0	1	0
6568	0	2	1	0	2	0	2	0	1	1	2	1	2
1649	0	2	-1	0	1	1	0	0	0	2	2	0	0
6652	0	2	1	0	1	0	0	0	0	1	2	0	2
6712	0	3	1	0	0	2	2	0	0	1	0	1	2
6856	0	4	1	0	0	1	1	0	1	2	0	1	0
6904	0	2	1	0	1	2	1	0	0	0	1	0	0
6940	0	2	1	0	1	2	1	0	1	1	1	0	0
1745	0	3	-1	0	2	2	0	0	2	0	0	1	2
1781	0	3	-1	0	0	1	1	0	0	2	0	2	1
7180	0	2	1	0	1	2	1	0	2	1	2	1	1
7244	0	4	-1	0	0	1	1	0	0	1	0	2	0
7352	0	4	-1	0	2	0	2	0	2	0	0	0	0
1897	0	2	1	0	2	2	0	0	2	2	1	0	0
1901	0	2	-1	0	0	0	2	0	0	2	1	1	1
1921	0	3	1	0	1	1	0	0	2	1	0	2	2
1937	0	4	-1	0	1	1	0	0	2	2	0	0	0
7804	0	3	1	0	0	1	1	0	1	0	0	1	1
7928	0	3	-1	0	1	0	0	0	1	2	0	0	2
7948	0	2	1	0	2	0	2	0	1	1	1	1	0
1993	0	2	1	0	2	2	0	0	1	1	1	2	0
2021	0	3	-1	0	0	1	1	0	2	1	0	0	1
8140	0	2	1	0	1	2	1	0	2	1	1	2	1
8168	0	2	-1	0	2	0	2	0	2	0	1	0	2
8296	0	2	1	0	1	2	1	0	0	2	1	2	0
8396	0	3	-1	0	0	1	1	0	1	1	0	1	2
8488	0	2	1	0	1	0	0	0	2	2	2	2	2
8620	0	2	1	0	1	2	1	0	1	0	2	2	0
8668	0	2	1	0	2	1	0	0	1	2	1	2	1
2177	0	4	-1	0	2	2	0	0	0	2	0	2	0
2185	0	2	1	0	2	2	0	0	2	1	2	0	2
8840	0	2	-1	0	1	2	1	0	0	1	2	2	1
8920	0	2	1	0	0	2	2	0	1	1	1	0	0
9020	0	2	-1	0	1	2	1	0	2	1	1	1	1
9052	0	2	1	0	0	2	2	0	2	0	1	2	1
9080	0	4	-1	0	1	2	1	0	1	0	0	2	0
2285	0	2	-1	0	2	0	2	0	2	1	1	2	0
9256	0	2	1	0	1	2	1	0	1	2	2	1	2
2321	0	2	-1	0	1	1	0	0	0	2	2	2	0
9320	0	2	-1	0	1	2	1	0	1	0	1	0	1
9416	0	2	-1	0	1	2	1	0	2	1	2	0	1
2369	0	2	-1	0	1	1	0	0	2	2	2	2	1
9548	0	2	-1	0	1	2	1	0	1	0	2	1	2
2405	0	2	-1	0	0	2	2	0	0	1	2	0	2
9724	0	3	1	0	1	2	1	0	0	2	0	2	1
9752	0	2	-1	0	2	1	0	0	1	2	2	2	0
10028	0	2	-1	0	0	2	2	0	0	1	1	1	1
10072	0	2	1	0	0	2	2	0	1	1	2	1	2
2549	0	2	-1	0	1	1	2	0	1	0	1	1	0
10216	0	2	1	0	0	1	1	0	2	2	1	0	1
10220	0	3	-1	0	1	2	1	0	2	1	0	2	1
2557	0	2	1	0	1	0	0	0	1	0	1	1	0
2561	0	3	-1	0	1	1	0	0	1	1	0	2	2
10280	0	4	-1	0	2	1	0	0	2	2	0	2	0
2573	0	2	-1	0	2	1	0	0	1	0	2	2	0
2629	0	2	1	0	0	2	2	0	0	0	2	0	0
10520	0	2	-1	0	1	2	1	0	2	1	2	1	1

[illegible]	1	2	-1	0	2	2	0	0	2	0	2	1	0
[illegible]	1	2	-1	0	2	2	0	0	1	0	1	2	0
[illegible]	1	3	1	0	0	0	0	0	1	1	0	1	1
[illegible]	1	2	1	0	0	0	0	0	0	2	1	2	2
[illegible]	1	2	1	0	0	0	0	0	2	2	1	1	1
[illegible]	1	2	-1	0	2	2	0	0	0	1	1	2	1
[illegible]	1	3	-1	0	2	2	0	0	1	0	0	1	1
[illegible]	1	2	1	0	0	0	0	0	1	2	2	1	0
[illegible]	1	2	1	0	0	0	0	0	0	1	2	2	2
[illegible]	1	2	-1	0	1	0	1	0	0	2	2	2	0
[illegible]	1	2	1	0	0	0	0	0	1	2	1	0	1
[illegible]	1	3	1	0	0	0	0	0	2	1	0	0	2
[illegible]	1	2	1	0	0	0	0	0	2	1	1	2	2
[illegible]	1	3	1	0	0	0	0	0	2	2	0	2	2
[illegible]	1	2	-1	0	2	2	0	0	2	2	2	0	2
[illegible]	1	3	1	0	0	0	0	0	1	0	0	1	2
[illegible]	1	3	1	0	0	0	0	0	2	0	0	0	2
[illegible]	1	3	1	0	0	0	0	0	1	1	0	0	1
[illegible]	1	2	1	0	0	0	0	0	2	0	2	2	1
[illegible]	1	3	-1	0	0	1	1	0	1	0	0	0	2
[illegible]	1	3	-1	0	2	2	0	0	2	1	0	1	2
[illegible]	1	2	1	0	0	0	0	0	0	2	1	2	0
[illegible]	1	3	-1	0	2	0	0	0	2	0	0	2	2
[illegible]	1	3	1	0	0	0	0	0	2	1	0	2	1
[illegible]	1	3	1	0	0	0	0	0	1	0	0	2	1
[illegible]	1	3	1	0	0	0	0	0	1	0	0	0	2
[illegible]	1	2	-1	0	2	2	0	0	2	1	1	0	1
[illegible]	1	2	1	0	0	0	0	0	0	0	1	1	2
[illegible]	1	2	1	0	0	0	0	0	1	1	1	0	1
[illegible]	1	2	1	0	0	0	0	0	1	2	2	2	2
[illegible]	1	3	1	0	0	0	0	0	1	1	0	2	2
[illegible]	1	2	1	0	0	0	0	0	1	2	1	0	0
[illegible]	1	6	1	0	0	0	0	0	1	1	0	1	0
[illegible]	1	3	1	0	0	0	0	0	1	1	0	2	1
[illegible]	1	4	1	0	0	0	0	0	2	0	0	2	0
[illegible]	1	3	1	0	0	0	0	0	2	1	0	1	1
[illegible]	1	2	-1	0	2	0	2	0	2	1	2	0	0
[illegible]	1	2	1	0	0	0	0	0	0	1	2	2	1
[illegible]	1	2	1	0	0	0	0	0	0	2	2	0	2
[illegible]	1	2	1	0	0	0	0	0	2	2	2	1	0
[illegible]	1	2	1	0	0	0	0	0	0	0	2	1	2
[illegible]	1	2	1	0	0	0	0	0	0	0	1	0	1
[illegible]	1	2	1	0	0	0	0	0	1	0	1	2	0
[illegible]	1	2	-1	0	1	2	1	0	0	0	1	0	1
[illegible]	1	2	-1	0	1	1	0	0	1	1	1	1	0
[illegible]	1	2	1	0	0	0	0	0	0	1	1	1	2
[illegible]	1	2	1	0	0	0	0	0	1	2	1	2	2
[illegible]	1	2	-1	0	2	0	2	0	0	0	2	1	2
[illegible]	1	2	1	0	0	0	0	0	2	2	1	0	2
[illegible]	1	3	1	0	0	0	0	0	0	1	0	0	1
[illegible]	1	2	-1	0	0	1	1	0	2	1	1	2	1
[illegible]	1	2	1	0	0	0	0	0	2	2	1	0	1
[illegible]	1	2	1	0	0	0	0	0	0	1	1	0	2
[illegible]	1	3	-1	0	1	2	1	0	1	0	0	2	1
[illegible]	1	2	1	0	0	0	0	0	0	2	1	1	2
[illegible]	1	3	1	0	0	0	0	0	2	0	0	2	2
[illegible]	1	2	1	0	0	0	0	0	1	2	2	2	1
[illegible]	1	3	-1	0	1	1	0	0	0	2	0	0	2
[illegible]	1	2	1	0	0	0	0	0	0	1	2	2	0
[illegible]	1	2	1	0	0	0	0	0	1	2	1	2	1
[illegible]	1	2	-1	0	2	2	0	0	1	2	2	2	2
[illegible]	1	2	-1	0	0	1	1	0	0	1	2	2	0
[illegible]	1	2	-1	0	1	2	1	0	0	2	1	0	1
[illegible]	1	2	1	0	0	0	0	0	0	2	2	0	2

p = 3

discr	t	lambda	ch	a(0)				a(1)			a(2)		a(3)
-56	1	2	1	0	0	0	0	0	1	0	2	2	2
-35	1	2	1	0	0	0	0	0	2	0	2	0	2
-164	1	3	1	0	0	0	0	0	0	0	0	2	2
-47	1	2	1	0	0	0	0	0	0	1	1	1	1
-260	1	2	1	0	0	0	0	0	1	1	2	1	0
-296	1	2	1	0	0	0	0	0	0	1	1	1	0
-344	1	3	1	0	0	0	0	0	1	0	0	0	1
-404	1	2	1	0	0	0	0	0	0	1	2	2	2
-107	1	2	1	0	0	0	0	0	0	2	1	2	0
-452	1	2	1	0	0	0	0	0	1	2	1	0	2
-596	1	2	1	0	0	0	0	0	0	2	1	1	1
-632	1	2	1	0	0	0	0	0	2	2	2	2	1
-692	1	2	1	0	0	0	0	0	1	1	1	0	1
-211	1	2	-1	0	2	0	0	0	1	2	1	1	1
-856	1	4	-1	0	1	1	0	0	2	1	0	0	0
-872	1	2	1	0	0	0	0	0	2	1	1	1	0
-227	1	2	1	0	0	0	0	0	2	2	2	2	2
-920	1	2	1	0	0	0	0	0	0	1	2	1	2
-239	1	6	1	0	0	0	0	0	1	0	0	1	0
-1096	1	4	-1	0	2	2	0	0	0	1	0	2	0
-1144	1	3	-1	0	2	2	0	0	2	0	0	2	2
-287	1	2	1	0	0	0	0	0	2	0	1	0	0
-1208	1	3	1	0	0	0	0	0	1	1	0	0	2
-1220	1	3	1	0	0	0	0	0	0	0	0	1	1
-311	1	4	1	0	0	0	0	0	1	0	0	0	0
-323	1	2	1	0	0	0	0	0	0	0	2	2	0
-1336	1	2	-1	0	2	2	0	0	0	1	2	2	2
-1448	1	2	1	0	0	0	0	0	1	2	2	1	0
-1460	1	4	1	0	0	0	0	0	0	0	0	0	0
-1480	1	2	-1	0	2	2	0	0	2	1	1	0	1
-1496	1	2	1	0	0	0	0	0	2	2	1	2	2
-1508	1	2	1	0	0	0	0	0	1	1	1	2	1
-379	1	2	-1	0	2	0	0	0	0	1	2	2	2
-1556	1	2	1	0	0	0	0	0	1	2	2	1	2
-1604	1	2	1	0	0	0	0	0	1	1	1	1	1
-1652	1	2	1	0	0	0	0	0	0	2	1	1	0
-419	1	2	1	0	0	0	0	0	2	1	2	2	2
-1748	1	2	1	0	0	0	0	0	2	1	1	1	1
-1832	1	7	1	0	0	0	0	0	2	2	0	0	0
-1844	1	2	1	0	0	0	0	0	1	1	2	1	1
-467	1	2	1	0	0	0	0	0	1	2	2	1	1
-1928	1	3	1	0	0	0	0	0	1	2	0	2	2
-503	1	2	1	0	0	0	0	0	0	1	2	2	1
-2024	1	3	1	0	0	0	0	0	0	0	0	1	2
-2036	1	2	1	0	0	0	0	0	0	1	1	2	2
-2072	1	2	1	0	0	0	0	0	0	2	2	2	1
-2132	1	5	1	0	0	0	0	0	0	2	0	2	0
-2260	1	2	-1	0	2	2	0	0	0	0	1	0	2
-587	1	3	1	0	0	0	0	0	0	0	0	0	2
-599	1	2	1	0	0	0	0	0	1	0	1	0	1
-2408	1	2	1	0	0	0	0	0	2	2	1	1	1
-611	1	2	1	0	0	0	0	0	1	0	2	2	0
-2468	1	2	1	0	0	0	0	0	2	0	2	0	0
-2516	1	5	1	0	0	0	0	0	1	2	0	1	0
-635	1	2	1	0	0	0	0	0	2	0	2	0	1
-2552	1	2	1	0	0	0	0	0	2	1	1	0	0
-2564	1	3	1	0	0	0	0	0	0	1	0	2	1
-2612	1	2	1	0	0	0	0	0	1	0	2	1	2
-659	1	3	1	0	0	0	0	0	1	2	0	0	1

-5284	1	2	-1	0	1	2	1	0	1	0	2	0	1
-5320	1	3	-1	0	1	2	1	0	0	0	0	2	2
-5348	1	2	1	0	0	0	0	0	0	0	1	2	2
-1351	1	3	-1	0	1	2	1	0	2	0	0	0	2
-1355	1	2	1	0	0	0	0	0	0	1	1	2	0
-1367	1	2	1	0	0	0	0	0	0	1	2	1	2
-5480	1	2	1	0	0	0	0	0	0	1	2	0	2
-1379	1	4	1	0	0	0	0	0	2	1	0	1	0
-1391	1	3	1	0	0	0	0	0	0	2	0	2	1
-1399	1	2	-1	0	0	0	2	0	2	1	2	1	2
-5624	1	2	1	0	0	0	0	0	2	0	2	1	1
-5636	1	3	1	0	0	0	0	0	0	1	0	1	2
-1423	1	2	-1	0	0	2	0	0	1	2	2	0	1
-1427	1	6	1	0	0	0	0	0	1	0	0	2	0
-5732	1	2	1	0	0	0	0	0	1	1	2	0	0
-1451	1	2	1	0	0	0	0	0	1	2	2	1	0
-5816	1	2	1	0	0	0	0	0	1	1	2	2	2
-5912	1	3	1	0	0	0	0	0	2	1	0	1	2
-5924	1	2	1	0	0	0	0	0	0	0	1	1	0
-1487	1	2	1	0	0	0	0	0	2	2	2	0	1
-6004	1	3	-1	0	1	2	1	0	2	1	0	1	1
-6116	1	2	1	0	0	0	0	0	2	2	1	0	2
-6164	1	2	1	0	0	0	0	0	1	0	1	2	0
-1547	1	5	1	0	0	0	0	0	2	0	0	1	0
-1567	1	2	-1	0	1	0	1	0	2	2	2	2	0
-6296	1	2	1	0	0	0	0	0	1	2	2	0	2
-6308	1	3	1	0	0	0	0	0	1	0	0	0	1
-1579	1	3	-1	0	0	2	0	0	2	2	0	1	2
-1583	1	2	1	0	0	0	0	0	1	2	2	0	0
-6344	1	2	1	0	0	0	0	0	0	1	1	0	2
-6392	1	3	1	0	0	0	0	0	0	2	0	0	1
-1603	1	4	-1	0	1	1	0	0	2	2	0	0	0
-1619	1	2	1	0	0	0	0	0	2	1	2	0	1
-6536	1	2	1	0	0	0	0	0	2	2	2	2	2
-6632	1	3	1	0	0	0	0	0	0	1	0	1	2
-6644	1	2	1	0	0	0	0	0	2	2	1	1	2
-6680	1	3	1	0	0	0	0	0	1	1	0	2	1
-1691	1	3	1	0	0	0	0	0	0	2	0	1	1
-1703	1	3	1	0	0	0	0	0	1	2	0	1	2
-6968	1	2	1	0	0	0	0	0	2	1	2	1	1
-1751	1	2	1	0	0	0	0	0	1	0	1	1	0
-7108	1	6	-1	0	1	2	1	0	2	1	0	0	0
-1807	1	2	-1	0	2	2	0	0	0	1	2	2	0
-1811	1	2	1	0	0	0	0	0	2	0	2	1	1
-7352	1	2	1	0	0	0	0	0	2	0	2	1	1
-1843	1	2	-1	0	1	1	0	0	2	0	2	2	0
-7460	1	3	1	0	0	0	0	0	2	0	0	0	2
-1871	1	2	1	0	0	0	0	0	0	2	1	1	1
-7508	1	3	1	0	0	0	0	0	2	0	0	0	2
-7544	1	2	1	0	0	0	0	0	2	0	1	2	0
-7556	1	3	1	0	0	0	0	0	2	0	0	1	1
-1895	1	2	1	0	0	0	0	0	2	2	2	2	0
-1919	1	2	1	0	0	0	0	0	1	2	1	1	1
-1931	1	2	1	0	0	0	0	0	1	2	1	1	0
-7748	1	2	1	0	0	0	0	0	0	0	1	1	0
-1943	1	3	1	0	0	0	0	0	0	1	0	0	2
-7796	1	2	1	0	0	0	0	0	1	1	2	1	2
-1967	1	2	1	0	0	0	0	0	0	1	1	2	2
-7892	1	2	1	0	0	0	0	0	1	1	1	1	1
-7960	1	3	-1	0	1	2	1	0	1	1	0	0	1
-1991	1	2	1	0	0	0	0	0	0	2	2	1	0
-7976	1	3	1	0	0	0	0	0	2	1	0	0	2
-7988	1	3	1	0	0	0	0	0	2	2	0	2	1
-2015	1	3	1	0	0	0	0	0	2	2	0	2	1

[illegible]	1	2	1	0	0	0	0	0	0	2	2	1	1
[illegible]	1	2	1	0	0	0	0	0	2	1	2	2	1
[illegible]	1	2	1	0	0	0	0	0	2	0	1	0	0
[illegible]	1	3	-1	0	0	1	1	0	1	0	0	1	1
[illegible]	1	2	1	0	0	0	0	0	2	2	2	1	0
[illegible]	1	2	1	0	0	0	0	0	0	1	1	1	1
[illegible]	1	2	-1	0	2	2	0	0	2	2	1	1	1
[illegible]	1	2	1	0	0	0	0	0	2	1	2	1	1
[illegible]	1	2	1	0	0	0	0	0	2	1	1	2	1
[illegible]	1	3	1	0	0	0	0	0	1	2	0	2	1
[illegible]	1	2	1	0	0	0	0	0	2	2	2	2	2
[illegible]	1	3	1	0	0	0	0	0	2	2	0	0	1
[illegible]	1	2	1	0	0	0	0	0	2	0	1	1	0
[illegible]	1	2	1	0	0	0	0	0	1	1	1	1	2
[illegible]	1	3	-1	0	2	2	0	0	1	0	0	0	2
[illegible]	1	2	1	0	0	0	0	0	2	0	1	0	2
[illegible]	1	2	1	0	0	0	0	0	2	2	1	0	2
[illegible]	1	4	1	0	0	0	0	0	1	2	0	1	0
[illegible]	1	2	1	0	0	0	0	0	0	2	1	1	1
[illegible]	1	2	1	0	0	0	0	0	2	0	2	1	0
[illegible]	1	2	1	0	0	0	0	0	1	0	1	1	2
[illegible]	1	2	1	0	0	0	0	0	2	1	2	2	2
[illegible]	1	2	1	0	0	0	0	0	2	1	1	0	2
[illegible]	1	3	1	0	0	0	0	0	0	2	0	2	2
[illegible]	1	2	1	0	0	0	0	0	1	1	2	1	0
[illegible]	1	3	1	0	0	0	0	0	2	2	0	1	2
[illegible]	1	2	1	0	0	0	0	0	0	2	1	2	2
[illegible]	1	2	1	0	0	0	0	0	1	0	1	1	2
[illegible]	1	3	-1	0	1	2	1	0	2	0	0	1	2
[illegible]	1	2	1	0	0	0	0	0	2	2	1	1	1
[illegible]	1	2	1	0	0	0	0	0	1	2	2	1	1
[illegible]	1	2	1	0	0	0	0	0	2	1	1	1	2
[illegible]	1	2	-1	0	1	2	1	0	1	2	2	0	2
[illegible]	1	2	1	0	0	0	0	0	0	0	2	1	2
[illegible]	1	2	1	0	0	0	0	0	0	2	2	1	0
[illegible]	1	3	1	0	0	0	0	0	2	2	0	0	2
[illegible]	1	4	-1	0	1	2	1	0	0	1	0	0	0
[illegible]	1	2	-1	0	2	0	2	0	2	1	1	0	2
[illegible]	1	2	1	0	0	0	0	0	0	0	1	1	2
[illegible]	1	3	1	0	0	0	0	0	1	1	0	2	1
[illegible]	1	5	1	0	0	0	0	0	0	2	0	2	0
[illegible]	1	4	1	0	0	0	0	0	0	2	0	2	0
[illegible]	1	2	1	0	0	0	0	0	2	2	1	0	1
[illegible]	1	3	1	0	0	0	0	0	1	0	0	0	2
[illegible]	1	2	-1	0	1	2	1	0	0	2	2	0	2
[illegible]	1	4	1	0	0	0	0	0	0	1	0	1	0
[illegible]	1	2	1	0	0	0	0	0	0	0	2	1	0
[illegible]	1	2	1	0	0	0	0	0	1	0	1	2	0
[illegible]	1	3	1	0	0	0	0	0	2	0	0	1	1
[illegible]	1	2	-1	0	0	1	1	0	0	2	1	1	1
[illegible]	1	4	-1	0	1	1	0	0	2	2	0	1	0
[illegible]	1	2	1	0	0	0	0	0	0	2	2	2	0
[illegible]	1	3	1	0	0	0	0	0	2	1	0	2	2
[illegible]	1	2	-1	0	1	2	1	0	2	1	2	0	0
[illegible]	1	2	1	0	0	0	0	0	1	2	2	1	2
[illegible]	1	3	-1	0	1	2	1	0	1	1	0	2	1
[illegible]	1	2	1	0	0	0	0	0	1	2	2	2	2
[illegible]	1	3	1	0	0	0	0	0	0	2	0	0	1
[illegible]	1	2	1	0	0	0	0	0	0	1	1	2	0
[illegible]	1	3	-1	0	2	1	1	0	2	0	0	0	1
[illegible]	1	2	-1	0	1	1	0	0	2	0	2	0	2
[illegible]	1	2	1	0	0	0	0	0	2	0	1	1	0
[illegible]	1	3	1	0	0	0	0	0	2	2	0	2	2
[illegible]	1	4	1	0	0	0	0	0	1	0	0	0	0

discr	t	lambda	ch	a(0)	a(1)	a(2)	a(3)
[illegible]	1	2	1	0 0 0 0	0 1 1	1 2	0
[illegible]	1	2	1	0 0 0 0	0 2 1	2 0	0
[illegible]	1	2	-1	0 1 1 0	0 0 2	2 1	2
[illegible]	1	4	1	0 0 0 0	0 0 0	0 1	0
[illegible]	1	2	1	0 0 0 0	0 1 0	1 1	2
[illegible]	1	2	1	0 0 0 0	0 1 0	1 0	2
[illegible]	1	3	-1	0 2 0 2	0 1 2	0 2	2
[illegible]	1	3	1	0 0 0 0	0 1 2	0 2	2
[illegible]	1	2	1	0 0 0 0	0 2 1	2 2	1
[illegible]	1	2	1	0 0 0 0	0 2 2	2 0	0
[illegible]	1	2	1	0 0 0 0	0 1 1	2 2	1
[illegible]	1	2	1	0 0 0 0	0 1 2	2 0	1
[illegible]	1	2	1	0 0 0 0	0 1 0	2 1	0
[illegible]	1	2	1	0 0 0 0	0 2 2	2 0	2
[illegible]	1	2	1	0 0 0 0	0 1 2	2 2	0
[illegible]	1	2	1	0 0 0 0	0 1 1	2 2	2
[illegible]	1	2	1	0 0 0 0	0 0 1	1 1	0
[illegible]	1	2	1	0 0 0 0	0 1 2	2 2	1
[illegible]	1	2	1	0 0 0 0	0 1 0	2 0	1
[illegible]	1	3	1	0 0 0 0	0 1 0	0 0	1
[illegible]	1	3	-1	0 1 2 1	0 2 0	0 0	2
[illegible]	1	2	1	0 0 0 0	0 2 1	1 1	1
[illegible]	1	2	1	0 0 0 0	0 0 0	2 1	2
[illegible]	1	2	-1	0 0 2 2	0 0 2	1 1	0
[illegible]	1	2	1	0 0 0 0	0 1 2	1 0	1
[illegible]	1	8	1	0 0 0 0	0 2 2	0 2	0
[illegible]	1	2	-1	0 1 2 1	0 2 0	2 1	0
[illegible]	1	2	-1	0 0 1 1	0 1 2	1 0	2
[illegible]	1	2	1	0 0 0 0	0 2 0	1 0	0
[illegible]	1	2	1	0 0 0 0	0 1 0	2 0	1
[illegible]	1	3	1	0 0 0 0	0 1 2	0 0	2
[illegible]	1	2	1	0 0 0 0	0 1 1	1 0	1
[illegible]	1	4	1	0 0 0 0	0 2 2	0 1	0
[illegible]	1	3	1	0 0 0 0	0 1 0	0 0	1
[illegible]	1	2	1	0 0 0 0	0 0 1	1 2	0
[illegible]	1	4	1	0 0 0 0	0 1 1	0 2	0
[illegible]	1	4	1	0 0 0 0	0 1 0	0 2	0
[illegible]	1	3	1	0 0 0 0	0 1 1	0 1	2
[illegible]	1	3	1	0 0 0 0	0 1 1	0 1	1
[illegible]	1	3	-1	0 1 2 1	0 0 0	0 1	2
[illegible]	1	5	1	0 0 0 0	0 0 0	0 2	0
[illegible]	1	3	-1	0 1 0 0	0 2 0	0 1	2
[illegible]	1	2	-1	0 1 2 1	0 0 0	2 2	2
[illegible]	1	3	1	0 0 0 0	0 0 0	0 2	2
[illegible]	1	2	1	0 0 0 0	0 1 0	1 2	1
[illegible]	1	2	1	0 0 0 0	0 1 1	2 1	2
[illegible]	1	2	-1	0 1 1 0	0 2 0	2 1	2
[illegible]	1	5	1	0 0 0 0	0 0 2	0 0	0
[illegible]	1	2	-1	0 1 2 1	0 0 1	1 1	1
[illegible]	1	2	1	0 0 0 0	0 0 1	1 1	0
[illegible]	1	2	1	0 0 0 0	0 1 1	1 2	1
[illegible]	1	2	-1	0 0 1 1	0 0 1	2 2	2
[illegible]	1	2	1	0 0 0 0	0 1 1	1 0	0
[illegible]	1	2	1	0 0 0 0	0 2 1	1 0	0
[illegible]	1	2	-1	0 0 1 1	0 1 0	2 1	2
[illegible]	1	2	-1	0 0 2 2	0 0 1	1 0	2
[illegible]	1	2	-1	0 2 0 2	0 1 1	2 2	1
[illegible]	1	2	1	0 0 0 0	0 0 0	1 2	2
[illegible]	1	2	1	0 0 0 0	0 1 0	1 1	0
[illegible]	1	2	1	0 0 0 0	0 1 1	2 2	1
-12344	1	2	1	0 0 0 0	0 0 0	1 2	1
-12376	1	3	-1	0 1 2 1	0 0 2	0 1	2
-12392	1	2	1	0 0 0 0	0 0 1	1 0	2
-12404	1	5	1	0 0 0 0	0 2 1	0 2	0
[illegible]	1	2	1	0 0 0 0	0 2 1	1 2	0
[illegible]	1	2	1	0 0 0 0	0 1 2	2 0	0
[illegible]	1	2	1	0 0 0 0	0 2 2	1 1	1
[illegible]	1	2	1	0 0 0 0	0 0 2	1 0	0
[illegible]	1	2	-1	0 2 0 2	0 2 2	1 2	2
[illegible]	1	2	1	0 0 0 0	0 0 2	1 0	2
[illegible]	1	3	1	0 0 0 0	0 1 2	0 1	2
[illegible]	1	3	1	0 0 0 0	0 2 2	0 0	1
[illegible]	1	2	1	0 0 0 0	0 1 2	1 1	0
[illegible]	1	4	1	0 0 0 0	0 2 1	0 0	0
[illegible]	1	2	1	0 0 0 0	0 1 0	2 2	2
[illegible]	1	2	1	0 0 0 0	0 1 1	2 1	2
[illegible]	1	2	1	0 0 0 0	0 2 1	2 2	1
[illegible]	1	3	1	0 0 0 0	0 1 2	0 0	2
[illegible]	1	2	-1	0 2 0 2	0 1 1	1 2	1
[illegible]	1	3	1	0 0 0 0	0 2 0	0 2	2
[illegible]	1	3	-1	0 1 1 0	0 0 2	0 1	1

p = 5

discr	t	lambda	ch	a(0)	a(1)	a(2)	a(3)
92	2	2	-1	0 2 1 1	0 2 4	2 0	0
37	2	2	-1	0 3 0 2	0 2 2	4 0	1
109	0	2	1	0 3 3 3	0 2 4	4 3	2
456	0	3	1	0 2 2 3	0 0 4	0 0	3
508	2	2	-1	0 2 2 4	0 4 1	4 1	3
508	0	2	-1	0 4 1 0	0 4 0	3 3	4
149	2	2	1	0 1 0 2	0 0 3	1 3	2
253	2	2	-1	0 4 3 0	0 2 3	1 2	4
1068	2	2	-1	0 2 4 4	0 0 2	2 2	1
1112	0	3	-1	0 1 0 0	0 1 0	0 4	1
313	2	2	-1	0 0 3 1	0 2 0	3 2	3
1256	0	2	1	0 1 2 1	0 2 1	2 4	0
1592	2	2	-1	0 3 0 0	0 3 1	3 3	0
433	0	2	-1	0 2 2 2	0 3 2	3 4	3
1736	0	2	1	0 0 2 4	0 3 3	4 2	3
1756	0	4	1	0 3 0 0	0 1 4	0 2	0
1784	2	2	1	0 1 2 4	0 3 1	3 3	2
453	0	2	-1	0 2 0 4	0 4 1	1 3	2
457	2	3	-1	0 1 2 0	0 0 3	0 0	3
1864	0	2	1	0 2 3 2	0 3 1	4 4	2
1884	2	2	1	0 2 2 1	0 0 1	3 3	2
1992	2	2	-1	0 4 1 4	0 3 3	1 3	3
509	2	2	1	0 4 1 0	0 4 2	3 1	4
581	0	2	1	0 3 2 0	0 4 2	3 4	3
2348	0	2	-1	0 1 1 1	0 4 0	1 2	4
597	0	2	-1	0 0 3 2	0 1 1	3 3	2
2492	0	2	-1	0 3 3 1	0 4 1	4 1	4
2504	2	2	1	0 0 1 0	0 0 0	1 3	4
629	2	2	1	0 4 1 0	0 4 1	2 4	2
633	2	3	-1	0 1 2 2	0 4 3	0 3	2
2876	0	2	1	0 4 4 1	0 3 4	3 4	1
2936	0	2	1	0 2 3 0	0 4 4	1 2	1
753	0	2	-1	0 2 4 0	0 2 0	3 3	1
861	2	2	1	0 4 1 3	0 3 2	4 2	4
869	0	2	1	0 3 2 1	0 1 0	2 4	3
4024	2	2	1	0 1 3 3	0 2 3	1 2	1
1073	2	3	-1	0 4 1 3	0 2 1	0 3	3
4316	0	2	1	0 4 2 4	0 0 1	1 0	4
4344	0	2	1	0 3 0 2	0 4 3	1 3	2
4444	0	2	1	0 0 2 1	0 0 3	2 2	4
4524	2	2	1	0 3 1 1	0 4 4	4 2	4

discr	t	lambda	ch	a(0)				a(1)			a(2)		a(3)
10892	0	2	-1	0	3	2	2	0	4	0	4	1	3
10956	0	2	1	0	3	4	3	0	3	3	4	3	3
2741	0	2	1	0	3	3	2	0	0	1	1	0	1
10972	0	2	-1	0	4	4	2	0	2	0	2	1	0
11036	2	2	1	0	4	0	2	0	1	0	1	3	1
2829	0	3	1	0	4	4	3	0	2	3	0	3	3
11512	2	2	-1	0	2	0	2	0	0	2	3	2	0
11528	2	2	-1	0	1	3	4	0	3	3	1	3	0
11656	2	2	1	0	2	2	4	0	2	3	3	0	4
11852	2	2	-1	0	2	2	1	0	3	2	2	4	4
11868	2	2	-1	0	4	1	0	0	3	1	1	2	4
11896	2	2	1	0	0	2	1	0	0	3	2	3	4
11932	0	2	-1	0	3	4	1	0	4	3	2	4	4
11944	0	2	1	0	4	0	3	0	0	4	2	3	4
12056	2	2	1	0	0	0	4	0	0	0	1	2	1
12236	0	2	1	0	4	3	0	0	0	2	1	4	1
3101	0	2	1	0	0	0	4	0	4	2	3	2	1
12424	2	2	1	0	4	0	1	0	0	2	3	4	0

p = 5

discr	t	lambda	ch	a(0)				a(1)			a(2)		a(3)
-11	1	2	1	0	0	0	0	0	4	3	3	0	2
-104	1	2	1	0	0	0	0	0	1	3	2	0	3
-136	1	2	1	0	0	0	0	0	2	4	3	1	1
-164	1	2	1	0	0	0	0	0	2	1	4	3	3
-184	3	2	1	0	4	0	0	0	3	3	4	0	4
-51	1	2	1	0	0	0	0	0	0	0	3	2	1
-456	1	2	1	0	0	0	0	0	4	3	2	4	2
-123	3	3	-1	0	4	0	0	0	1	4	0	2	1
-127	1	2	-1	0	2	0	0	0	3	1	2	0	2
-664	1	3	1	0	0	0	0	0	4	1	0	0	2
-664	3	2	1	0	4	0	0	0	3	3	2	1	4
-952	3	2	-1	0	3	1	0	0	4	4	1	4	2
-964	1	3	1	0	0	0	0	0	1	1	0	2	3
-1012	3	2	-1	0	3	1	0	0	1	2	3	0	4
-1112	3	2	-1	0	4	0	0	0	2	4	2	2	1
-299	3	2	1	0	4	0	0	0	0	4	2	4	0
-1204	3	3	1	0	3	1	0	0	1	0	0	1	3
-311	1	4	1	0	0	0	0	0	2	2	0	4	0
-1304	1	2	1	0	0	0	0	0	3	1	4	3	3
-1336	1	2	1	0	0	0	0	0	2	1	1	4	1
-1624	1	2	1	0	0	0	0	0	1	3	2	2	1
-1636	1	2	1	0	0	0	0	0	0	4	3	3	3
-1688	1	2	-1	0	4	0	0	0	4	4	4	3	1
-439	1	2	1	0	0	0	0	0	3	3	3	2	0
-1796	1	2	1	0	0	0	0	0	2	3	1	3	4
-451	1	2	1	0	0	0	0	0	1	1	2	0	1
-1864	1	2	1	0	0	0	0	0	0	4	2	4	0
-471	1	2	1	0	0	0	0	0	2	3	3	2	0
-479	1	2	1	0	0	0	0	0	3	0	4	4	0
-1924	1	2	1	0	0	0	0	0	3	2	3	0	1
-1924	3	2	1	0	3	1	0	0	2	2	1	0	1
-1928	1	2	-1	0	3	1	0	0	4	4	1	0	1
-499	1	2	1	0	0	0	0	0	0	2	4	2	2
-519	1	3	1	0	0	0	0	0	2	0	0	3	2
-523	1	2	-1	0	2	0	0	0	4	4	3	0	2
-2152	1	2	-1	0	4	0	0	0	0	2	2	0	2
-2152	3	2	-1	0	2	2	0	0	1	1	3	3	1
-2264	3	2	1	0	4	0	0	0	0	4	1	1	4
-2324	1	2	1	0	0	0	0	0	4	2	2	4	4
-2372	3	2	-1	0	4	0	0	0	2	2	4	4	0

discr	t	lambda	ch	a(0)				a(1)			a(2)		a(3)
4728	0	2	-1	0	3	0	3	0	3	2	3	3	4
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[illegible]	2	3	1	0	0	3	1	0	2	2	0	1	3
[illegible]	0	2	-1	0	0	2	3	0	2	3	1	0	0
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[illegible]	0	2	-1	0	0	1	4	0	1	3	2	3	0
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[illegible]	2	2	1	0	3	3	3	0	4	2	3	1	3
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8444	0	2	1	0	2	4	2	0	4	4	2	4	1
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10088	0	2	-1	0	2	1	4	0	4	1	2	4	2
10136	2	2	1	0	3	2	0	0	1	1	2	0	0
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10616	0	2	1	0	3	4	1	0	1	1	2	3	2
10668	0	2	-1	0	3	0	4	0	3	3	4	0	3
10732	0	3	-1	0	2	1	2	0	4	3	0	4	4
10792	0	2	-1	0	0	2	0	0	0	0	4	2	0
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-1459	1	2	1	0	0	0	0	0	0	2	3	1	0
-5864	1	2	1	0	0	0	0	0	1	0	3	4	4
-5944	1	2	1	0	0	0	0	0	1	0	3	2	0
-1499	1	2	1	0	0	0	0	0	1	2	1	3	1
-1511	1	2	1	0	0	0	0	0	2	4	4	0	1
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-6168	1	2	-1	0	3	1	0	0	2	3	1	1	2
-1551	1	2	1	0	0	0	0	0	0	3	2	2	2
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-6308	3	2	-1	0	3	1	0	0	2	0	1	4	0
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-6568	3	2	-1	0	0	4	0	0	4	0	1	1	4
-1651	1	2	1	0	0	0	0	0	4	4	4	2	3
-6616	1	3	1	0	0	0	0	0	4	4	0	4	3
-1671	3	2	1	0	4	0	0	0	3	2	1	3	0
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-6884	1	2	1	0	0	0	0	0	2	1	4	1	1
-1723	1	2	-1	0	2	0	0	0	3	3	4	0	4
-7096	1	2	1	0	0	0	0	0	4	3	3	3	3
-1779	1	2	1	0	0	0	0	0	1	1	3	1	0
-7172	3	2	-1	0	3	1	0	0	1	0	2	0	0
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-7432	1	3	-1	0	3	1	0	0	3	3	0	2	3
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-7684	1	2	1	0	0	0	0	0	3	2	4	1	0
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-7796	1	3	1	0	0	0	0	0	3	4	0	4	3
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-7816	1	3	1	0	0	0	0	0	0	0	0	0	3
-1959	3	2	1	0	4	0	0	0	1	1	3	2	4
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-2039	1	2	1	0	0	0	0	0	2	4	3	0	1
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-8868	3	2	-1	0	1	3	0	0	1	0	1	4	1
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-2231	1	2	1	0	0	0	0	0	4	3	2	3	2
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-611	1	2	1	0	0	0	0	0	4	1	1	0	0
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-2996	1	2	1	0	0	0	0	0	1	1	1	3	2
-759	1	2	1	0	0	0	0	0	3	2	1	0	0
-3044	1	4	1	0	0	0	0	0	4	4	0	3	0
-3064	1	3	1	0	0	0	0	0	3	3	0	2	4
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-803	1	2	-1	0	4	0	0	0	2	3	1	0	0
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-879	1	2	1	0	0	0	0	0	3	3	3	3	3
-887	3	2	-1	0	2	0	0	0	2	2	2	3	1
-911	1	2	1	0	0	0	0	0	0	4	2	2	0
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-4024	3	2	1	0	2	2	0	0	4	3	4	0	4
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-3363	3	2	-1	0	1	3	0	0	4	4	1	0	0
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-3719	1	2	1	0	0	0	0	0	1	2	2	4	2
-14948	3	2	-1	0	1	3	0	0	1	2	2	1	4
[illegible]	3	2	-1	0	0	3	1	0	0	1	1	0	1
[illegible]	3	2	-1	0	4	4	0	0	2	0	1	1	1
[illegible]	1	2	1	0	0	0	0	0	0	2	1	3	3
[illegible]	3	2	-1	0	0	4	0	0	3	3	3	4	4
[illegible]	1	2	1	0	0	0	0	0	1	1	2	0	4
[illegible]	1	2	1	0	0	0	0	0	3	1	2	2	2
[illegible]	1	3	1	0	0	0	0	0	4	0	0	0	3
[illegible]	1	2	1	0	0	0	0	0	0	0	3	2	3
[illegible]	1	3	1	0	0	0	0	0	0	4	0	1	2
[illegible]	1	2	-1	0	2	2	0	0	2	0	2	3	4
[illegible]	1	3	1	0	0	0	0	0	3	3	0	3	4
[illegible]	1	2	1	0	0	0	0	0	1	4	1	2	3
[illegible]	3	2	1	0	3	1	0	0	0	3	4	0	2
[illegible]	3	4	-1	0	0	2	0	0	4	3	0	2	0
[illegible]	3	2	1	0	3	0	1	0	4	4	3	1	3
[illegible]	1	2	1	0	0	0	0	0	3	0	1	2	0
[illegible]	1	3	1	0	0	0	0	0	1	2	0	1	2
[illegible]	1	2	1	0	0	0	0	0	0	2	1	4	2
[illegible]	1	3	1	0	0	0	0	0	4	3	0	1	3
[illegible]	1	2	-1	0	1	3	0	0	2	3	3	2	1
[illegible]	1	2	1	0	0	0	0	0	2	1	3	2	0
[illegible]	1	5	1	0	0	0	0	0	3	2	0	3	0
[illegible]	1	2	1	0	0	0	0	0	3	4	4	4	2
[illegible]	1	2	-1	0	1	3	0	0	1	1	1	4	0
[illegible]	1	2	1	0	0	0	0	0	4	3	3	4	1
[illegible]	1	2	1	0	0	0	0	0	2	4	1	4	0
[illegible]	1	3	1	0	0	0	0	0	4	2	0	2	4

-9444	1	3	1	0	0	0	0	0	3	2	0	1	3
-2371	1	2	1	0	0	0	0	0	3	1	4	0	1
-9524	1	2	1	0	0	0	0	0	3	3	1	3	1
-2391	1	3	1	0	0	0	0	0	0	2	0	0	3
-2431	1	2	1	0	0	0	0	0	1	2	4	0	1
-2451	1	2	1	0	0	0	0	0	1	2	1	1	1
-2471	3	2	1	0	4	0	0	0	4	4	4	4	3
-2483	1	2	-1	0	3	1	0	0	3	3	3	4	1
-9956	1	2	1	0	0	0	0	0	3	1	3	1	3
-10036	1	2	1	0	0	0	0	0	1	2	3	4	3
-10104	1	2	1	0	0	0	0	0	2	4	3	2	1
-2531	1	2	1	0	0	0	0	0	1	4	3	0	0
-10248	3	2	-1	0	1	3	0	0	3	0	1	0	0
-10276	1	2	1	0	0	0	0	0	1	0	4	3	2
-10308	1	2	-1	0	3	1	0	0	1	0	3	0	4
-10328	1	3	-1	0	0	4	0	0	0	1	0	4	2
-10328	3	2	-1	0	2	2	0	0	0	3	1	2	0
-2591	1	2	1	0	0	0	0	0	2	3	2	2	3
-10376	1	2	1	0	0	0	0	0	3	3	3	3	0
-10456	1	2	1	0	0	0	0	0	3	0	2	1	2
[illegible]	3	2	-1	0	2	2	0	0	2	0	2	3	3
[illegible]	1	2	1	0	0	0	0	0	0	0	2	1	4
[illegible]	1	3	1	0	0	0	0	0	0	2	2	0	4
[illegible]	1	3	1	0	0	0	0	0	4	2	0	3	3
[illegible]	1	2	-1	0	2	0	0	0	4	4	4	1	4
[illegible]	3	2	-1	0	0	1	1	0	0	4	1	4	2
[illegible]	1	3	1	0	0	0	0	0	4	2	0	0	4
[illegible]	1	3	1	0	0	0	0	0	4	4	0	0	4
[illegible]	3	2	1	0	4	0	0	0	4	0	4	3	4
[illegible]	1	2	1	0	0	0	0	0	1	4	3	3	2
[illegible]	1	2	1	0	0	0	0	0	1	4	4	2	1
[illegible]	1	2	1	0	0	0	0	0	2	0	4	3	0
[illegible]	1	2	1	0	0	0	0	0	3	3	3	4	2
[illegible]	1	2	1	0	0	0	0	0	4	3	2	3	3
[illegible]	1	2	1	0	0	0	0	0	2	3	3	2	1
[illegible]	1	2	1	0	0	0	0	0	0	4	2	3	4
[illegible]	3	2	-1	0	3	1	0	0	2	0	4	0	2
[illegible]	1	3	-1	0	4	4	0	0	2	4	0	0	4
[illegible]	1	2	1	0	0	0	0	0	3	0	2	4	2
[illegible]	1	2	1	0	0	0	0	0	2	0	3	1	3
[illegible]	1	2	-1	0	1	3	0	0	3	2	4	3	1
[illegible]	1	2	1	0	0	0	0	0	2	0	1	3	3
[illegible]	3	4	1	0	3	1	0	0	2	2	0	2	0
[illegible]	1	2	1	0	0	0	0	0	2	0	1	2	3
[illegible]	1	3	1	0	0	0	0	0	0	3	0	4	4
[illegible]	1	2	1	0	0	0	0	0	4	0	3	2	0
[illegible]	1	2	1	0	0	0	0	0	1	0	3	3	0
[illegible]	1	2	1	0	0	0	0	0	0	1	4	3	0
[illegible]	1	2	1	0	0	0	0	0	2	0	1	1	3
[illegible]	1	3	1	0	0	0	0	0	3	2	0	4	1
[illegible]	1	2	-1	0	1	3	0	0	1	2	3	4	4
[illegible]	3	2	1	0	4	0	0	0	1	2	3	3	3
[illegible]	1	4	1	0	0	0	0	0	4	1	0	4	0
[illegible]	3	2	1	0	1	3	0	0	0	3	4	1	3
[illegible]	1	3	1	0	0	0	0	0	3	1	0	4	1
[illegible]	1	2	1	0	0	0	0	0	1	3	1	3	2
[illegible]	1	2	1	0	0	0	0	0	3	0	1	0	3
[illegible]	1	2	1	0	0	0	0	0	1	2	1	2	3
[illegible]	3	2	1	0	3	0	1	0	4	3	2	1	1
[illegible]	1	4	-1	0	3	1	0	0	1	1	0	0	0
[illegible]	1	2	1	0	0	0	0	0	3	3	4	3	1
[illegible]	3	2	1	0	1	3	0	0	3	2	3	2	1
[illegible]	1	3	-1	0	2	2	0	0	2	2	0	1	3
[illegible]	1	2	1	0	0	0	0	0	2	3	4	2	1

-16484	1	2	1	0	0	0	0	0	0	1	3	4	1
-16536	1	2	1	0	0	0	0	0	3	3	1	4	4
-16616	1	2	1	0	0	0	0	0	4	4	4	3	0
-4159	3	2	1	0	3	1	0	0	4	0	3	2	4
-4179	3	2	1	0	4	4	0	0	4	3	1	4	0
-16724	1	3	1	0	0	0	0	0	2	1	0	4	2
-16824	1	2	1	0	0	0	0	0	3	0	3	1	4
-16824	3	2	1	0	1	3	0	0	3	0	3	2	3
-4231	1	3	1	0	0	0	0	0	3	1	0	3	3
-16968	1	2	-1	0	1	3	0	0	0	0	1	0	2
-17016	1	2	1	0	0	0	0	0	1	0	4	0	2
-4259	3	2	1	0	1	3	0	0	4	0	3	1	3
-4291	1	3	1	0	0	0	0	0	0	2	0	2	4
-4331	1	3	1	0	0	0	0	0	3	2	0	1	3
-17336	1	2	1	0	0	0	0	0	2	2	2	4	4
-4371	1	3	1	0	0	0	0	0	0	0	0	3	3
-4379	1	2	1	0	0	0	0	0	1	3	2	0	4
-17592	3	2	-1	0	1	3	0	0	1	3	2	2	1
-4411	1	2	1	0	0	0	0	0	4	3	1	0	0
-17656	1	2	1	0	0	0	0	0	4	0	1	4	3
-4463	1	2	-1	0	2	4	0	0	1	1	4	3	3
-17876	1	2	1	0	0	0	0	0	1	2	3	1	4
-17944	1	2	1	0	0	0	0	0	2	0	3	0	4
-4511	1	2	1	0	0	0	0	0	2	3	1	1	3
-18056	1	2	1	0	0	0	0	0	4	3	1	3	3
-18084	1	2	1	0	0	0	0	0	1	3	1	0	1
-18164	1	2	1	0	0	0	0	0	0	0	1	0	0
-4551	1	2	1	0	0	0	0	0	1	3	4	0	0
-18244	1	2	1	0	0	0	0	0	4	3	3	4	3
-18276	3	2	1	0	1	3	0	0	2	0	4	4	4
-18328	3	2	-1	0	0	3	1	0	2	2	1	2	0
-4631	1	2	1	0	0	0	0	0	3	4	4	3	2
-4639	1	2	1	0	0	0	0	0	3	0	1	0	0
-18596	3	2	1	0	4	4	0	0	3	2	2	2	1
-4651	1	2	1	0	0	0	0	0	4	2	3	3	1
-18616	3	2	1	0	4	4	0	0	2	2	2	3	2
-18708	1	2	-1	0	1	3	0	0	0	0	1	2	2
-18824	1	2	1	0	0	0	0	0	2	0	4	4	3
-18856	3	2	1	0	1	2	1	0	4	0	3	1	3
-18996	1	3	1	0	0	0	0	0	0	3	0	0	4
-4751	1	2	1	0	0	0	0	0	4	1	3	3	1
-19096	1	4	1	0	0	0	0	0	3	2	0	1	0
-19176	1	3	1	0	0	0	0	0	4	2	0	4	4
-19284	1	2	1	0	0	0	0	0	0	0	2	1	2
-4831	1	2	1	0	0	0	0	0	4	0	4	2	1
-19352	1	2	-1	0	1	3	0	0	2	0	1	4	1
-19384	1	2	1	0	0	0	0	0	4	2	4	4	0
-19396	3	2	1	0	4	4	0	0	3	0	4	2	3
-4859	1	3	1	0	0	0	0	0	4	4	0	1	1
-19496	1	2	1	0	0	0	0	0	3	1	2	2	3
-19556	1	2	1	0	0	0	0	0	1	2	3	1	0
-19576	1	2	1	0	0	0	0	0	1	4	1	1	0
-4919	1	2	1	0	0	0	0	0	3	4	2	3	2
-19736	1	2	1	0	0	0	0	0	0	4	4	3	3
-19816	1	2	1	0	0	0	0	0	2	4	2	0	0
-19848	3	2	-1	0	1	3	0	0	0	0	2	3	4
-4967	3	2	-1	0	1	1	0	0	3	0	1	3	1
-19876	3	2	1	0	2	1	1	0	3	1	2	2	0
-4971	1	2	1	0	0	0	0	0	3	2	2	4	0
-19896	1	2	1	0	0	0	0	0	3	0	4	3	3
-4979	1	2	1	0	0	0	0	0	3	3	3	0	1
-19956	1	2	1	0	0	0	0	0	1	1	1	0	2
-19972	3	3	-1	0	4	3	1	0	1	1	0	2	4
-4999	1	2	1	0	0	0	0	0	0	4	2	1	1

p = 7

discr	t	lambda	ch	a(0)				a(1)			a(2)		a(3)
[illegible]	0	2	-1	0	4	5	1	0	2	2	6	0	6
[illegible]	0	4	1	0	1	1	5	0	3	3	0	2	0
[illegible]	4	2	-1	0	2	0	0	0	4	6	6	5	3
[illegible]	2	2	1	0	6	0	2	0	3	6	5	2	5
[illegible]	4	2	1	0	4	0	0	0	4	3	6	0	6
[illegible]	4	2	1	0	1	1	0	0	5	4	5	1	6
[illegible]	0	2	-1	0	5	1	5	0	1	0	1	6	5
[illegible]	2	2	-1	0	2	6	6	0	2	3	3	0	6
[illegible]	2	2	1	0	4	5	6	0	3	5	1	3	2
[illegible]	4	2	-1	0	1	1	0	0	4	4	3	4	3
[illegible]	4	2	1	0	1	1	0	0	4	2	2	5	0
[illegible]	4	3	-1	0	4	0	0	0	1	4	0	5	4
[illegible]	0	2	-1	0	3	1	3	0	3	1	5	4	2
[illegible]	4	2	-1	0	1	1	0	0	4	5	5	0	4
[illegible]	2	2	-1	0	3	3	5	0	3	1	1	4	0
[illegible]	0	2	-1	0	2	4	3	0	2	4	2	2	5
[illegible]	0	2	1	0	5	6	4	0	4	1	4	3	4
[illegible]	4	2	1	0	1	1	0	0	4	6	5	0	0
[illegible]	4	2	1	0	1	1	0	0	1	6	4	0	2
[illegible]	4	2	-1	0	1	1	0	0	5	4	2	5	4
[illegible]	0	2	-1	0	0	2	3	0	3	0	4	1	3
[illegible]	2	2	-1	0	2	4	2	0	4	2	1	5	1
[illegible]	0	2	-1	0	2	6	3	0	4	0	1	3	1
[illegible]	4	2	-1	0	1	1	0	0	3	1	4	1	3
[illegible]	4	2	-1	0	1	1	0	0	4	2	2	1	4
[illegible]	2	2	-1	0	3	0	5	0	4	0	1	5	5
[illegible]	0	3	-1	0	6	4	5	0	4	3	0	4	3
[illegible]	4	2	1	0	1	1	0	0	0	0	2	0	4
[illegible]	4	2	-1	0	1	1	0	0	4	4	3	2	3
[illegible]	0	2	-1	0	3	1	2	0	1	0	4	5	5

p = 7

discr	t	lambda	ch	a(0)				a(1)			a(2)		a(3)
-136	1	2	1	0	0	0	0	0	5	0	4	3	3
-136	3	2	1	0	6	3	3	0	5	3	6	2	3
-260	5	2	-1	0	6	2	3	0	4	2	5	1	5
-292	1	2	1	0	0	0	0	0	1	6	6	1	0
-356	1	2	1	0	0	0	0	0	3	4	3	5	4
-111	1	2	1	0	0	0	0	0	3	0	1	4	1
-472	1	2	1	0	0	0	0	0	3	4	3	0	0
-143	1	3	1	0	0	0	0	0	6	0	0	4	2
-580	1	3	1	0	0	0	0	0	0	3	0	3	4
-151	1	3	-1	0	2	0	0	0	4	2	0	3	6
-776	1	3	1	0	0	0	0	0	5	5	0	1	3
-195	1	2	1	0	0	0	0	0	4	5	1	4	0
-996	5	2	-1	0	2	6	6	0	3	4	3	3	1
-1048	1	2	1	0	0	0	0	0	0	6	5	4	6
-271	1	2	1	0	0	0	0	0	3	2	3	1	0
-1172	1	2	1	0	0	0	0	0	1	5	4	2	0
-307	3	3	1	0	2	6	6	0	3	6	0	6	3
-1380	3	2	-1	0	1	4	2	0	2	4	2	1	0
-347	3	2	-1	0	3	3	2	0	5	0	6	6	4
-1496	1	2	1	0	0	0	0	0	0	4	2	5	2
-411	1	2	1	0	0	0	0	0	4	2	1	0	1
-1704	1	2	1	0	0	0	0	0	2	5	1	1	2

-5368	1	2	1	0	0	0	0	0	1	5	2	2	5
-5444	1	2	1	0	0	0	0	0	4	2	3	3	1
-1371	1	7	1	0	0	0	0	0	0	1	0	6	0
-1371	3	2	1	0	3	2	3	0	4	4	4	1	1
-1391	5	2	1	0	5	0	0	0	5	1	3	6	0
-5624	1	2	1	0	0	0	0	0	4	5	1	3	2
-1411	5	2	-1	0	3	4	5	0	4	5	5	0	4
-5876	1	2	1	0	0	0	0	0	2	4	3	6	0
-1479	1	2	-1	0	1	1	0	0	2	1	6	2	5
-1487	1	2	1	0	0	0	0	0	6	6	2	4	4
-5956	3	4	1	0	0	3	6	0	1	6	0	0	0
-5988	1	2	1	0	0	0	0	0	1	6	5	5	5
-1511	5	2	1	0	6	5	1	0	4	0	6	0	1
-1523	5	2	-1	0	2	2	6	0	5	5	2	6	2
-6184	1	2	1	0	0	0	0	0	4	5	4	3	6
-6212	1	2	1	0	0	0	0	0	0	4	2	3	3
-6248	1	2	-1	0	1	1	0	0	6	2	5	2	5
-6340	1	2	1	0	0	0	0	0	2	3	4	4	0
-1599	1	2	1	0	0	0	0	0	2	6	5	6	6
-1615	1	2	1	0	0	0	0	0	2	5	3	0	3
-1619	5	2	-1	0	2	5	2	0	0	2	5	2	6
-6536	1	2	1	0	0	0	0	0	2	5	5	2	4
-6648	3	2	1	0	3	4	5	0	5	5	3	4	1
-6680	3	3	-1	0	6	1	0	0	0	0	0	2	4
-6712	1	2	1	0	0	0	0	0	2	0	6	1	4
-6740	5	2	1	0	0	5	5	0	2	6	2	6	6
-1703	1	2	-1	0	1	1	0	0	2	3	2	3	5
-1711	1	2	1	0	0	0	0	0	2	1	6	2	2
-6856	1	2	1	0	0	0	0	0	2	5	5	6	0
-6884	5	2	1	0	1	0	3	0	5	3	3	0	2
-1739	1	2	1	0	0	0	0	0	1	1	3	4	5
-6996	1	2	1	0	0	0	0	0	2	5	2	3	5
-1759	3	2	-1	0	6	2	6	0	4	3	3	0	5
-7048	1	2	1	0	0	0	0	0	0	0	1	0	1
-1763	1	2	1	0	0	0	0	0	4	5	6	4	5
-1763	5	2	1	0	1	6	3	0	6	1	3	2	3
-1783	5	2	1	0	6	0	1	0	1	4	6	6	3
-7172	5	2	-1	0	2	2	1	0	5	2	3	3	1
-7192	1	2	1	0	0	0	0	0	5	0	1	1	2
-7204	1	2	-1	0	1	1	0	0	0	0	2	1	5
-7348	1	2	1	0	0	0	0	0	0	3	3	6	0
-7384	3	2	1	0	3	2	0	0	4	5	5	3	6
-7444	1	2	1	0	0	0	0	0	5	3	5	5	0
-7460	1	3	1	0	0	0	0	0	4	1	0	6	6
-1879	1	2	1	0	0	0	0	0	4	5	6	0	0
-7544	1	2	1	0	0	0	0	0	0	4	2	1	6
-7592	1	2	-1	0	1	1	0	0	5	6	6	2	4
-1923	1	2	1	0	0	0	0	0	3	1	1	6	4
-1931	1	2	1	0	0	0	0	0	4	1	6	5	4
-7780	1	2	1	0	0	0	0	0	6	6	6	2	4
-7832	1	3	1	0	0	0	0	0	2	1	0	4	1
-7892	1	2	1	0	0	0	0	0	0	2	3	4	3
-1983	5	2	-1	0	2	3	2	0	3	0	1	3	0
-8104	1	2	1	0	0	0	0	0	3	0	2	1	5
-8264	1	2	-1	0	2	2	0	0	2	2	1	2	1
-2071	1	3	1	0	0	0	0	0	5	0	0	0	6
-8328	1	2	1	0	0	0	0	0	1	2	1	3	1
-8340	1	2	1	0	0	0	0	0	0	3	1	3	1
-8376	1	2	-1	0	1	1	0	0	1	5	5	1	4
-8376	3	2	-1	0	2	3	4	0	1	4	5	4	5
-8392	1	2	1	0	0	0	0	0	3	1	1	2	4
-8408	5	2	-1	0	0	6	2	0	0	2	5	4	2
-2127	1	2	1	0	0	0	0	0	6	6	6	6	0
-8548	3	2	-1	0	5	3	2	0	6	4	5	6	5
-439	5	2	1	0	1	0	1	0	6	2	5	4	2
-1928	1	2	1	0	0	0	0	0	2	1	4	1	4
-1956	1	3	1	0	0	0	0	0	3	3	0	4	5
-2036	1	3	1	0	0	0	0	0	3	6	0	2	4
-2120	1	3	1	0	0	0	0	0	4	0	0	5	5
-2152	1	2	1	0	0	0	0	0	5	4	2	0	0
-615	5	2	1	0	6	5	1	0	1	4	6	5	6
-2488	1	3	1	0	0	0	0	0	2	1	0	5	5
-2532	1	2	1	0	0	0	0	0	3	0	1	5	1
-2568	5	2	1	0	6	4	4	0	0	4	1	2	3
-2644	1	2	1	0	0	0	0	0	4	1	1	0	5
-2676	5	3	-1	0	4	5	6	0	3	4	0	3	4
-2680	5	3	1	0	1	4	4	0	1	3	0	3	6
-2708	1	3	1	0	0	0	0	0	0	2	0	3	6
-759	1	2	1	0	0	0	0	0	6	1	3	2	1
-3048	1	2	1	0	0	0	0	0	1	4	1	0	1
-3092	1	2	1	0	0	0	0	0	5	5	5	1	2
-3156	1	2	1	0	0	0	0	0	5	4	2	3	6
-3176	1	2	1	0	0	0	0	0	2	6	3	0	3
-831	1	2	1	0	0	0	0	0	1	3	1	6	1
-3396	1	2	-1	0	1	1	0	0	1	3	1	1	3
-3428	1	2	1	0	0	0	0	0	4	2	2	2	5
-859	1	2	1	0	0	0	0	0	6	0	6	3	6
-3464	5	2	1	0	3	5	3	0	6	6	5	6	6
-3524	1	2	1	0	0	0	0	0	4	4	2	0	0
-3572	3	2	-1	0	0	5	3	0	6	6	3	5	0
-3576	1	2	1	0	0	0	0	0	5	0	4	4	5
-3624	5	2	1	0	3	5	4	0	4	6	5	1	0
-3656	5	2	-1	0	6	1	4	0	3	2	4	1	1
-939	5	2	-1	0	1	0	5	0	0	0	5	6	1
-3764	1	2	1	0	0	0	0	0	0	5	4	1	6
-3876	5	2	1	0	2	5	3	0	6	1	3	2	3
-3908	3	2	-1	0	2	3	5	0	0	5	2	4	2
-979	1	2	1	0	0	0	0	0	0	4	2	4	2
-3972	1	2	1	0	0	0	0	0	1	5	4	0	6
-1003	5	2	-1	0	6	2	4	0	4	5	4	1	0
-1007	5	2	1	0	5	2	5	0	3	0	1	0	4
-4040	1	4	-1	0	1	1	0	0	3	6	0	5	0
-1011	1	2	1	0	0	0	0	0	0	1	5	3	3
-4072	1	2	1	0	0	0	0	0	6	6	2	5	1
-4072	5	3	1	0	0	0	1	0	2	4	0	3	2
-1027	1	2	1	0	0	0	0	0	0	2	5	6	4
-4168	5	2	1	0	3	4	4	0	1	1	4	4	5
-4264	5	2	-1	0	6	5	6	0	4	4	4	2	0
-1067	1	2	1	0	0	0	0	0	0	0	3	1	1
-4324	5	3	1	0	6	4	5	0	3	0	0	4	4
-4388	1	2	1	0	0	0	0	0	0	5	1	3	1
-4404	1	2	-1	0	1	1	0	0	1	5	4	4	0
-4408	1	3	1	0	0	0	0	0	6	4	0	4	4
-4456	3	2	-1	0	2	6	4	0	3	1	4	5	5
-1135	5	2	-1	0	0	5	1	0	6	5	4	4	3
-4664	3	3	-1	0	5	3	6	0	6	5	0	6	1
-4772	1	2	1	0	0	0	0	0	3	6	5	4	3
-4776	1	2	-1	0	1	1	0	0	2	4	3	6	1
-1223	1	2	1	0	0	0	0	0	6	3	1	1	1
-1231	1	2	1	0	0	0	0	0	0	3	4	1	3
-4980	1	2	1	0	0	0	0	0	2	6	1	0	0
-5028	5	2	-1	0	1	6	6	0	1	1	2	5	6
-5032	1	2	1	0	0	0	0	0	2	1	5	2	4
-1259	1	2	1	0	0	0	0	0	3	0	1	2	2
-5092	1	2	1	0	0	0	0	0	4	0	3	5	3
-5176	1	3	1	0	0	0	0	0	2	4	0	1	1
-1307	1	2	1	0	0	0	0	0	3	2	4	0	5
-5272	3	2	-1	0	0	2	5	0	5	4	4	3	5

p = 11

discr	t	lambda	ch	a(0)	a(1)	a(2)	a(3)
[illegible]	3	2	-1	0 8 6 7	0 7 3	1 7	0
[illegible]	7	2	-1	0 3 3 5	0 7 10	7 1	10
[illegible]	1	2	1	0 0 0 0	0 3 5	5 9	8
[illegible]	1	2	1	0 0 0 0	0 1 10	10 7	5
[illegible]	1	2	1	0 0 0 0	0 10 6	9 4	3
[illegible]	1	2	1	0 0 0 0	0 9 7	2 5	8
[illegible]	1	2	1	0 0 0 0	0 10 3	2 1	0
[illegible]	1	2	1	0 0 0 0	0 1 8	4 8	3
[illegible]	1	2	1	0 0 0 0	0 8 1	6 7	9
[illegible]	1	2	1	0 0 0 0	0 7 6	6 9	4
[illegible]	1	2	1	0 0 0 0	0 3 0	6 6	9
[illegible]	1	2	1	0 0 0 0	0 0 10	3 3	3
[illegible]	5	2	1	0 3 2 2	0 5 8	2 0	10
[illegible]	1	2	1	0 0 0 0	0 6 5	3 9	2
[illegible]	9	2	-1	0 6 10 0	0 10 1	1 8	7
[illegible]	5	2	1	0 2 6 2	0 6 2	2 1	5
[illegible]	1	2	1	0 0 0 0	0 7 0	5 7	6
[illegible]	3	2	1	0 6 4 7	0 9 9	9 4	6
[illegible]	1	2	1	0 0 0 0	0 4 9	7 6	7
[illegible]	1	2	1	0 0 0 0	0 10 7	6 4	3
[illegible]	1	2	1	0 0 0 0	0 6 5	1 1	7
[illegible]	1	2	1	0 0 0 0	0 8 10	8 1	9
[illegible]	1	2	1	0 0 0 0	0 8 1	2 7	10
[illegible]	3	2	-1	0 6 3 0	0 3 10	8 3	10
[illegible]	1	2	1	0 0 0 0	0 1 7	6 0	0
[illegible]	1	2	1	0 0 0 0	0 5 4	6 5	9
[illegible]	9	2	-1	0 9 8 8	0 8 10	8 0	1
[illegible]	5	2	-1	0 6 0 2	0 4 5	10 9	6
[illegible]	7	2	-1	0 4 10 5	0 10 2	6 1	1
[illegible]	1	3	1	0 0 0 0	0 0 0	0 7	1
[illegible]	1	2	1	0 0 0 0	0 2 10	2 7	1
[illegible]	9	2	-1	0 7 3 6	0 4 8	4 9	10
[illegible]	1	2	1	0 0 0 0	0 5 9	3 8	10
[illegible]	5	2	1	0 5 2 2	0 3 0	7 10	4
[illegible]	1	2	1	0 0 0 0	0 5 3	7 9	2
[illegible]	3	2	-1	0 3 8 1	0 7 3	10 2	1
[illegible]	3	2	1	0 2 4 9	0 2 7	3 6	3
[illegible]	1	2	1	0 0 0 0	0 7 7	1 5	7
[illegible]	9	2	1	0 3 10 1	0 8 10	10 7	3
[illegible]	1	2	1	0 0 0 0	0 3 2	8 2	0
[illegible]	1	2	1	0 0 0 0	0 7 3	7 10	0
[illegible]	3	2	1	0 5 0 6	0 6 0	2 6	5
[illegible]	1	2	1	0 0 0 0	0 10 0	5 5	6

[illegible]	1	2	-1	0 1 1 0	0 2 6	6 0	4
[illegible]	1	3	-1	0 5 1 0	0 3 3	0 1	5
[illegible]	5	2	-1	0 2 2 6	0 4 5	2 3	5
[illegible]	1	3	1	0 0 0 0	0 6 2	0 2	3
[illegible]	1	2	1	0 0 0 0	0 6 5	5 4	1
[illegible]	3	2	-1	0 5 4 0	0 4 2	3 0	5
[illegible]	1	2	1	0 0 0 0	0 2 2	2 6	0
[illegible]	3	2	1	0 1 3 6	0 1 6	1 0	6
[illegible]	1	2	1	0 0 0 0	0 0 2	3 0	0
[illegible]	3	2	-1	0 0 6 4	0 6 5	5 2	6
[illegible]	1	3	1	0 0 0 0	0 3 4	0 6	5
[illegible]	5	2	1	0 4 0 1	0 2 1	2 1	4
[illegible]	3	2	1	0 2 3 0	0 4 4	1 5	4
[illegible]	1	2	1	0 0 0 0	0 3 3	2 0	5
[illegible]	1	2	1	0 0 0 0	0 2 4	5 4	5
[illegible]	5	2	1	0 3 1 0	0 3 5	4 5	6
[illegible]	1	3	1	0 0 0 0	0 0 4	0 1	2
[illegible]	1	2	1	0 0 0 0	0 3 2	2 6	4
[illegible]	3	2	-1	0 6 0 4	0 1 6	1 3	4
[illegible]	1	2	1	0 0 0 0	0 2 4	2 6	6
[illegible]	1	2	1	0 0 0 0	0 3 0	2 5	5
[illegible]	1	2	1	0 0 0 0	0 4 2	1 4	1
[illegible]	3	2	1	0 4 0 4	0 4 0	4 3	0
[illegible]	1	2	1	0 0 0 0	0 1 5	4 4	6
[illegible]	1	2	1	0 0 0 0	0 6 2	4 3	1
[illegible]	1	2	1	0 0 0 0	0 2 6	3 4	6
[illegible]	5	2	1	0 5 0 4	0 0 0	3 6	1
[illegible]	1	2	1	0 0 0 0	0 5 2	5 0	0
[illegible]	3	2	1	0 0 4 2	0 2 3	1 3	1
[illegible]	1	2	1	0 0 0 0	0 4 1	6 3	1
[illegible]	5	2	-1	0 3 0 0	0 1 4	1 0	0
[illegible]	1	3	1	0 0 0 0	0 3 5	0 5	6
[illegible]	5	2	1	0 3 3 3	0 3 2	1 6	0
[illegible]	1	2	1	0 0 0 0	0 2 5	4 1	3
[illegible]	5	2	-1	0 4 1 4	0 2 1	1 6	3
[illegible]	3	2	-1	0 2 3 4	0 3 1	1 3	1
[illegible]	3	2	1	0 2 6 4	0 6 3	4 1	3
[illegible]	1	2	1	0 0 0 0	0 6 0	4 3	1
[illegible]	1	2	1	0 0 0 0	0 3 5	1 0	2
[illegible]	1	2	1	0 0 0 0	0 4 2	2 0	5
[illegible]	3	2	-1	0 5 1 4	0 4 6	4 5	2
[illegible]	1	2	1	0 0 0 0	0 5 5	3 1	1
[illegible]	3	2	-1	0 4 3 3	0 2 0	6 6	6
[illegible]	3	2	-1	0 1 0 6	0 2 1	4 5	6
[illegible]	1	2	1	0 0 0 0	0 2 2	5 0	3
[illegible]	1	2	1	0 0 0 0	0 4 3	6 6	1
[illegible]	1	2	1	0 0 0 0	0 0 6	6 1	0
[illegible]	1	2	1	0 0 0 0	0 6 6	2 6	3

p = 11

discr	t	lambda	ch	a(0)	a(1)	a(2)	a(3)
21	4	2	-1	0 6 9 1	0 2 5	1 9	0
344	4	2	1	0 8 1 2	0 10 8	6 10	0
401	8	2	1	0 2 9 9	0 2 5	5 2	3
437	2	2	-1	0 5 2 0	0 6 1	9 2	9
1772	4	2	1	0 6 8 7	0 6 9	8 3	5
1784	2	2	-1	0 10 9 3	0 7 4	10 5	9