

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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11 **11** $N = 11 = 11$ (1 isogeny class)

a1(B)	0	-1	1	-10	-20	0	5	-	5	5	5	I_5	5 : 2, 3
a2(C)	0	-1	1	-7820	-263580	0	1	-	1	1	1	I_1	5 : 1
a3(A)	0	-1	1	0	0	0	5	-	1	1	1	I_1	5 : 1

14 **14** $N = 14 = 2 \cdot 7$ (1 isogeny class)

a1(C)	1	0	1	4	-6	0	6	-	6, 3	6, 3	2, 3	I_6, I_3	2 : 2; 3 : 3, 4
a2(D)	1	0	1	-36	-70	0	6	+	3, 6	3, 6	1, 6	I_3, I_6	2 : 1; 3 : 5, 6
a3(E)	1	0	1	-171	-874	0	2	-	18, 1	18, 1	2, 1	I_{18}, I_1	2 : 5; 3 : 1
a4(A)	1	0	1	-1	0	0	6	-	2, 1	2, 1	2, 1	I_2, I_1	2 : 6; 3 : 1
a5(F)	1	0	1	-2731	-55146	0	2	+	9, 2	9, 2	1, 2	I_9, I_2	2 : 3; 3 : 2
a6(B)	1	0	1	-11	12	0	6	+	1, 2	1, 2	1, 2	I_1, I_2	2 : 4; 3 : 2

15 **15** $N = 15 = 3 \cdot 5$ (1 isogeny class)

a1(C)	1	1	1	-10	-10	0	8	+	4, 4	4, 4	2, 4	I_4, I_4	2 : 2, 3, 4
a2(E)	1	1	1	-135	-660	0	4	+	8, 2	8, 2	2, 2	I_8, I_2	2 : 1, 5, 6
a3(B)	1	1	1	-5	2	0	8	+	2, 2	2, 2	2, 2	I_2, I_2	2 : 1, 7, 8
a4(F)	1	1	1	35	-28	0	8	-	2, 8	2, 8	2, 8	I_2, I_8	2 : 1
a5(H)	1	1	1	-2160	-39540	0	2	+	4, 1	4, 1	2, 1	I_4, I_1	2 : 2
a6(G)	1	1	1	-110	-880	0	2	-	16, 1	16, 1	2, 1	I_{16}, I_1	2 : 2
a7(D)	1	1	1	-80	242	0	4	+	1, 1	1, 1	1, 1	I_1, I_1	2 : 3
a8(A)	1	1	1	0	0	0	4	-	1, 1	1, 1	1, 1	I_1, I_1	2 : 3

17 **17** $N = 17 = 17$ (1 isogeny class)

a1(C)	1	-1	1	-1	-14	0	4	-	4	4	4	I_4	2 : 2
a2(B)	1	-1	1	-6	-4	0	4	+	2	2	2	I_2	2 : 1, 3, 4
a3(D)	1	-1	1	-91	-310	0	2	+	1	1	1	I_1	2 : 2
a4(A)	1	-1	1	-1	0	0	4	+	1	1	1	I_1	2 : 2

19 **19** $N = 19 = 19$ (1 isogeny class)

a1(B)	0	1	1	-9	-15	0	3	-	3	3	3	I_3	3 : 2, 3
a2(C)	0	1	1	-769	-8470	0	1	-	1	1	1	I_1	3 : 1
a3(A)	0	1	1	1	0	0	3	-	1	1	1	I_1	3 : 1

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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20 $N = 20 = 2^2 \cdot 5$ (1 isogeny class)**20**

a1(B)	0	1	0	4	4	0	6	−	8, 2	0, 2	3, 2	IV*, I ₂	2 : 2; 3 : 3
a2(A)	0	1	0	−1	0	0	6	+	4, 1	0, 1	3, 1	IV, I ₁	2 : 1; 3 : 4
a3(D)	0	1	0	−36	−140	0	2	−	8, 6	0, 6	1, 2	IV*, I ₆	2 : 4; 3 : 1
a4(C)	0	1	0	−41	−116	0	2	+	4, 3	0, 3	1, 1	IV, I ₃	2 : 3; 3 : 2

21 $N = 21 = 3 \cdot 7$ (1 isogeny class)**21**

a1(B)	1	0	0	−4	−1	0	8	+	4, 2	4, 2	4, 2	I ₄ , I ₂	2 : 2, 3, 4
a2(D)	1	0	0	−49	−136	0	4	+	2, 4	2, 4	2, 2	I ₂ , I ₄	2 : 1, 5, 6
a3(C)	1	0	0	−39	90	0	8	+	8, 1	8, 1	8, 1	I ₈ , I ₁	2 : 1
a4(A)	1	0	0	1	0	0	4	−	2, 1	2, 1	2, 1	I ₂ , I ₁	2 : 1
a5(F)	1	0	0	−784	−8515	0	2	+	1, 2	1, 2	1, 2	I ₁ , I ₂	2 : 2
a6(E)	1	0	0	−34	−217	0	2	−	1, 8	1, 8	1, 2	I ₁ , I ₈	2 : 2

24 $N = 24 = 2^3 \cdot 3$ (1 isogeny class)**24**

a1(B)	0	−1	0	−4	4	0	8	+	8, 2	0, 2	4, 2	I ₁ *, I ₂	2 : 2, 3, 4
a2(C)	0	−1	0	−24	−36	0	4	+	10, 4	0, 4	2, 2	III*, I ₄	2 : 1, 5, 6
a3(D)	0	−1	0	−64	220	0	4	+	10, 1	0, 1	2, 1	III*, I ₁	2 : 1
a4(A)	0	−1	0	1	0	0	4	−	4, 1	0, 1	2, 1	III, I ₁	2 : 1
a5(F)	0	−1	0	−384	−2772	0	2	+	11, 2	0, 2	1, 2	II*, I ₂	2 : 2
a6(E)	0	−1	0	16	−180	0	2	−	11, 8	0, 8	1, 2	II*, I ₈	2 : 2

26 $N = 26 = 2 \cdot 13$ (2 isogeny classes)**26**

a1(B)	1	0	1	−5	−8	0	3	−	3, 3	3, 3	1, 3	I ₃ , I ₃	3 : 2, 3
a2(C)	1	0	1	−460	−3830	0	1	−	9, 1	9, 1	1, 1	I ₉ , I ₁	3 : 1
a3(A)	1	0	1	0	0	0	3	−	1, 1	1, 1	1, 1	I ₁ , I ₁	3 : 1
b1(D)	1	−1	1	−3	3	0	7	−	7, 1	7, 1	7, 1	I ₇ , I ₁	7 : 2
b2(E)	1	−1	1	−213	−1257	0	1	−	1, 7	1, 7	1, 1	I ₁ , I ₇	7 : 1

27 $N = 27 = 3^3$ (1 isogeny class)**27**

a1(B)	0	0	1	0	−7	0	3	−	9	0	3	IV*	3 : 2, 3
a2(D)	0	0	1	−270	−1708	0	1	−	11	0	1	II*	3 : 1
a3(A)	0	0	1	0	0	0	3	−	3	0	1	II	3 : 1, 4
a4(C)	0	0	1	−30	63	0	3	−	5	0	1	IV	3 : 3

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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30 30 $N = 30 = 2 \cdot 3 \cdot 5$ (1 isogeny class)

a1(A)	1	0	1	1	2	0	6	−	4, 3, 1	4, 3, 1	2, 3, 1	I_4, I_3, I_1	$\mathbf{2} : 2; \mathbf{3} : 3$
a2(B)	1	0	1	−19	26	0	12	+	2, 6, 2	2, 6, 2	2, 6, 2	I_2, I_6, I_2	$\mathbf{2} : 1, 4, 5; \mathbf{3} : 6$
a3(C)	1	0	1	−14	−64	0	2	−	12, 1, 3	12, 1, 3	2, 1, 1	I_{12}, I_1, I_3	$\mathbf{2} : 6; \mathbf{3} : 1$
a4(D)	1	0	1	−69	−194	0	6	+	1, 12, 1	1, 12, 1	1, 12, 1	I_1, I_{12}, I_1	$\mathbf{2} : 2; \mathbf{3} : 7$
a5(E)	1	0	1	−289	1862	0	6	+	1, 3, 4	1, 3, 4	1, 3, 2	I_1, I_3, I_4	$\mathbf{2} : 2; \mathbf{3} : 8$
a6(F)	1	0	1	−334	−2368	0	4	+	6, 2, 6	6, 2, 6	2, 2, 2	I_6, I_2, I_6	$\mathbf{2} : 3, 7, 8; \mathbf{3} : 2$
a7(G)	1	0	1	−5334	−150368	0	2	+	3, 4, 3	3, 4, 3	1, 4, 1	I_3, I_4, I_3	$\mathbf{2} : 6; \mathbf{3} : 4$
a8(H)	1	0	1	−454	−544	0	2	+	3, 1, 12	3, 1, 12	1, 1, 2	I_3, I_1, I_{12}	$\mathbf{2} : 6; \mathbf{3} : 5$

32 32 $N = 32 = 2^5$ (1 isogeny class)

a1(B)	0	0	0	4	0	0	4	−	12	0	4	I_3^*	$\mathbf{2} : 2$
a2(A)	0	0	0	−1	0	0	4	+	6	0	2	III	$\mathbf{2} : 1, 3, 4$
a3(C)	0	0	0	−11	−14	0	2	+	9	0	1	I_0^*	$\mathbf{2} : 2$
a4(D)	0	0	0	−11	14	0	4	+	9	0	2	I_0^*	$\mathbf{2} : 2$

33 33 $N = 33 = 3 \cdot 11$ (1 isogeny class)

a1(B)	1	1	0	−11	0	0	4	+	6, 2	6, 2	2, 2	I_6, I_2	$\mathbf{2} : 2, 3, 4$
a2(A)	1	1	0	−6	−9	0	2	+	3, 1	3, 1	1, 1	I_3, I_1	$\mathbf{2} : 1$
a3(D)	1	1	0	−146	621	0	4	+	3, 4	3, 4	1, 4	I_3, I_4	$\mathbf{2} : 1$
a4(C)	1	1	0	44	55	0	2	−	12, 1	12, 1	2, 1	I_{12}, I_1	$\mathbf{2} : 1$

34 34 $N = 34 = 2 \cdot 17$ (1 isogeny class)

a1(A)	1	0	0	−3	1	0	6	+	6, 1	6, 1	6, 1	I_6, I_1	$\mathbf{2} : 2; \mathbf{3} : 3$
a2(B)	1	0	0	−43	105	0	6	+	3, 2	3, 2	3, 2	I_3, I_2	$\mathbf{2} : 1; \mathbf{3} : 4$
a3(C)	1	0	0	−103	−411	0	2	+	2, 3	2, 3	2, 1	I_2, I_3	$\mathbf{2} : 4; \mathbf{3} : 1$
a4(D)	1	0	0	−113	−329	0	2	+	1, 6	1, 6	1, 2	I_1, I_6	$\mathbf{2} : 3; \mathbf{3} : 2$

35 35 $N = 35 = 5 \cdot 7$ (1 isogeny class)

a1(B)	0	1	1	9	1	0	3	−	3, 3	3, 3	1, 3	I_3, I_3	$\mathbf{3} : 2, 3$
a2(C)	0	1	1	−131	−650	0	1	−	9, 1	9, 1	1, 1	I_9, I_1	$\mathbf{3} : 1$
a3(A)	0	1	1	−1	0	0	3	−	1, 1	1, 1	1, 1	I_1, I_1	$\mathbf{3} : 1$

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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36 $N = 36 = 2^2 \cdot 3^2$ (1 isogeny class)**36**

a1(A)	0	0	0	0	1	0	6	−	4, 3	0, 0	3, 2	IV, III	2 : 2; 3 : 3
a2(B)	0	0	0	−15	22	0	6	+	8, 3	0, 0	3, 2	IV*, III	2 : 1; 3 : 4
a3(C)	0	0	0	0	−27	0	2	−	4, 9	0, 0	1, 2	IV, III*	2 : 4; 3 : 1
a4(D)	0	0	0	−135	−594	0	2	+	8, 9	0, 0	1, 2	IV*, III*	2 : 3; 3 : 2

37 $N = 37 = 37$ (2 isogeny classes)**37**

a1(A)	0	0	1	−1	0	1	1	+	1	1	1	I ₁	
b1(C)	0	1	1	−23	−50	0	3	+	3	3	3	I ₃	3 : 2, 3
b2(D)	0	1	1	−1873	−31833	0	1	+	1	1	1	I ₁	3 : 1
b3(B)	0	1	1	−3	1	0	3	+	1	1	1	I ₁	3 : 1

38 $N = 38 = 2 \cdot 19$ (2 isogeny classes)**38**

a1(D)	1	0	1	9	90	0	3	−	9, 3	9, 3	1, 3	I ₉ , I ₃	3 : 2, 3
a2(E)	1	0	1	−86	−2456	0	1	−	27, 1	27, 1	1, 1	I ₂₇ , I ₁	3 : 1
a3(C)	1	0	1	−16	22	0	3	−	3, 1	3, 1	1, 1	I ₃ , I ₁	3 : 1
b1(A)	1	1	1	0	1	0	5	−	5, 1	5, 1	5, 1	I ₅ , I ₁	5 : 2
b2(B)	1	1	1	−70	−279	0	1	−	1, 5	1, 5	1, 1	I ₁ , I ₅	5 : 1

39 $N = 39 = 3 \cdot 13$ (1 isogeny class)**39**

a1(B)	1	1	0	−4	−5	0	4	+	2, 2	2, 2	2, 2	I ₂ , I ₂	2 : 2, 3, 4
a2(C)	1	1	0	−69	−252	0	2	+	4, 1	4, 1	2, 1	I ₄ , I ₁	2 : 1
a3(D)	1	1	0	−19	22	0	4	+	1, 4	1, 4	1, 4	I ₁ , I ₄	2 : 1
a4(A)	1	1	0	1	0	0	2	−	1, 1	1, 1	1, 1	I ₁ , I ₁	2 : 1

40 $N = 40 = 2^3 \cdot 5$ (1 isogeny class)**40**

a1(B)	0	0	0	−7	−6	0	4	+	8, 2	0, 2	2, 2	I ₁ *, I ₂	2 : 2, 3, 4
a2(D)	0	0	0	−107	−426	0	2	+	10, 1	0, 1	2, 1	III*, I ₁	2 : 1
a3(A)	0	0	0	−2	1	0	4	+	4, 1	0, 1	2, 1	III, I ₁	2 : 1
a4(C)	0	0	0	13	−34	0	4	−	10, 4	0, 4	2, 4	III*, I ₄	2 : 1

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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42 $N = 42 = 2 \cdot 3 \cdot 7$ (1 isogeny class)**42**

a1(A)	1	1	1	-4	5	0	8	-	8, 2, 1	8, 2, 1	8, 2, 1	I_8, I_2, I_1	2 : 2
a2(B)	1	1	1	-84	261	0	8	+	4, 4, 2	4, 4, 2	4, 2, 2	I_4, I_4, I_2	2 : 1, 3, 4
a3(C)	1	1	1	-104	101	0	4	+	2, 8, 4	2, 8, 4	2, 2, 2	I_2, I_8, I_4	2 : 2, 5, 6
a4(D)	1	1	1	-1344	18405	0	4	+	2, 2, 1	2, 2, 1	2, 2, 1	I_2, I_2, I_1	2 : 2
a5(F)	1	1	1	-914	-10915	0	2	+	1, 4, 8	1, 4, 8	1, 2, 2	I_1, I_4, I_8	2 : 3
a6(E)	1	1	1	386	1277	0	2	-	1, 16, 2	1, 16, 2	1, 2, 2	I_1, I_{16}, I_2	2 : 3

43 $N = 43 = 43$ (1 isogeny class)**43**

a1(A)	0	1	1	0	0	1	1	-	1	1	1	I_1	
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44 $N = 44 = 2^2 \cdot 11$ (1 isogeny class)**44**

a1(A)	0	1	0	3	-1	0	3	-	8, 1	0, 1	3, 1	IV^*, I_1	3 : 2
a2(B)	0	1	0	-77	-289	0	1	-	8, 3	0, 3	1, 1	IV^*, I_3	3 : 1

45 $N = 45 = 3^2 \cdot 5$ (1 isogeny class)**45**

a1(A)	1	-1	0	0	-5	0	2	-	7, 1	1, 1	2, 1	I_1^*, I_1	2 : 2
a2(B)	1	-1	0	-45	-104	0	4	+	8, 2	2, 2	4, 2	I_2^*, I_2	2 : 1, 3, 4
a3(D)	1	-1	0	-720	-7259	0	2	+	7, 1	1, 1	4, 1	I_1^*, I_1	2 : 2
a4(C)	1	-1	0	-90	175	0	4	+	10, 4	4, 4	4, 2	I_4^*, I_4	2 : 2, 5, 6
a5(E)	1	-1	0	-1215	16600	0	4	+	14, 2	8, 2	4, 2	I_8^*, I_2	2 : 4, 7, 8
a6(F)	1	-1	0	315	1066	0	2	-	8, 8	2, 8	2, 2	I_2^*, I_8	2 : 4
a7(H)	1	-1	0	-19440	1048135	0	2	+	10, 1	4, 1	2, 1	I_4^*, I_1	2 : 5
a8(G)	1	-1	0	-990	22765	0	2	-	22, 1	16, 1	4, 1	I_{16}^*, I_1	2 : 5

46 $N = 46 = 2 \cdot 23$ (1 isogeny class)**46**

a1(A)	1	-1	0	-10	-12	0	2	-	10, 1	10, 1	2, 1	I_{10}, I_1	2 : 2
a2(B)	1	-1	0	-170	-812	0	2	+	5, 2	5, 2	1, 2	I_5, I_2	2 : 1

48 $N = 48 = 2^4 \cdot 3$ (1 isogeny class)**48**

a1(B)	0	1	0	-4	-4	0	4	+	8, 2	0, 2	2, 2	I_0^*, I_2	2 : 2, 3, 4
a2(D)	0	1	0	-64	-220	0	2	+	10, 1	0, 1	2, 1	I_2^*, I_1	2 : 1
a3(C)	0	1	0	-24	36	0	8	+	10, 4	0, 4	4, 4	I_2^*, I_4	2 : 1, 5, 6
a4(A)	0	1	0	1	0	0	2	-	4, 1	0, 1	1, 1	II, I_1	2 : 1
a5(F)	0	1	0	-384	2772	0	4	+	11, 2	0, 2	2, 2	I_3^*, I_2	2 : 3
a6(E)	0	1	0	16	180	0	8	-	11, 8	0, 8	4, 8	I_3^*, I_8	2 : 3

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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49 **49** $N = 49 = 7^2$ (1 isogeny class)

a1(A)	1	-1	0	-2	-1	0	2	-	3	0	2	III	2 : 2; 7 : 3
a2(B)	1	-1	0	-37	-78	0	2	+	3	0	2	III	2 : 1; 7 : 4
a3(C)	1	-1	0	-107	552	0	2	-	9	0	2	III*	2 : 4; 7 : 1
a4(D)	1	-1	0	-1822	30393	0	2	+	9	0	2	III*	2 : 3; 7 : 2

50 **50** $N = 50 = 2 \cdot 5^2$ (2 isogeny classes)

a1(E)	1	0	1	-1	-2	0	3	-	1, 4	1, 0	1, 3	I ₁ , IV	3 : 2; 5 : 3
a2(F)	1	0	1	-126	-552	0	1	-	3, 4	3, 0	1, 1	I ₃ , IV	3 : 1; 5 : 4
a3(G)	1	0	1	-76	298	0	3	-	5, 8	5, 0	1, 3	I ₅ , IV*	3 : 4; 5 : 1
a4(H)	1	0	1	549	-2202	0	1	-	15, 8	15, 0	1, 1	I ₁₅ , IV*	3 : 3; 5 : 2
b1(A)	1	1	1	-3	1	0	5	-	5, 2	5, 0	5, 1	I ₅ , II	3 : 2; 5 : 3
b2(B)	1	1	1	22	-9	0	5	-	15, 2	15, 0	15, 1	I ₁₅ , II	3 : 1; 5 : 4
b3(C)	1	1	1	-13	-219	0	1	-	1, 10	1, 0	1, 1	I ₁ , II*	3 : 4; 5 : 1
b4(D)	1	1	1	-3138	-68969	0	1	-	3, 10	3, 0	3, 1	I ₃ , II*	3 : 3; 5 : 2

51 **51** $N = 51 = 3 \cdot 17$ (1 isogeny class)

a1(A)	0	1	1	1	-1	0	3	-	3, 1	3, 1	3, 1	I ₃ , I ₁	3 : 2
a2(B)	0	1	1	-59	-196	0	1	-	1, 3	1, 3	1, 1	I ₁ , I ₃	3 : 1

52 **52** $N = 52 = 2^2 \cdot 13$ (1 isogeny class)

a1(B)	0	0	0	1	-10	0	2	-	8, 2	0, 2	1, 2	IV*, I ₂	2 : 2
a2(A)	0	0	0	-4	-3	0	2	+	4, 1	0, 1	1, 1	IV, I ₁	2 : 1

53 **53** $N = 53 = 53$ (1 isogeny class)

a1(A)	1	-1	1	0	0	1	1	-	1	1	1	I ₁	
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54 **54** $N = 54 = 2 \cdot 3^3$ (2 isogeny classes)

a1(E)	1	-1	0	12	8	0	3	-	3, 9	3, 0	1, 3	I ₃ , IV*	3 : 2, 3
a2(F)	1	-1	0	-123	-667	0	1	-	9, 11	9, 0	1, 1	I ₉ , II*	3 : 1
a3(D)	1	-1	0	-3	3	0	3	-	1, 3	1, 0	1, 1	I ₁ , II	3 : 1
b1(A)	1	-1	1	1	-1	0	3	-	3, 3	3, 0	3, 1	I ₃ , II	3 : 2, 3
b2(C)	1	-1	1	-29	-53	0	1	-	1, 9	1, 0	1, 1	I ₁ , IV*	3 : 1
b3(B)	1	-1	1	-14	29	0	9	-	9, 5	9, 0	9, 3	I ₉ , IV	3 : 1

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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55 $N = 55 = 5 \cdot 11$ (1 isogeny class)**55**

a1(B)	1	-1	0	-4	3	0	4	+	2, 2	2, 2	2, 2	I_2, I_2	2 : 2, 3, 4
a2(D)	1	-1	0	-29	-52	0	2	+	1, 4	1, 4	1, 2	I_1, I_4	2 : 1
a3(C)	1	-1	0	-59	190	0	4	+	4, 1	4, 1	4, 1	I_4, I_1	2 : 1
a4(A)	1	-1	0	1	0	0	2	-	1, 1	1, 1	1, 1	I_1, I_1	2 : 1

56 $N = 56 = 2^3 \cdot 7$ (2 isogeny classes)**56**

a1(C)	0	0	0	1	2	0	4	-	8, 1	0, 1	4, 1	I_1^*, I_1	2 : 2
a2(D)	0	0	0	-19	30	0	4	+	10, 2	0, 2	2, 2	III^*, I_2	2 : 1, 3, 4
a3(E)	0	0	0	-59	-138	0	2	+	11, 4	0, 4	1, 2	II^*, I_4	2 : 2
a4(F)	0	0	0	-299	1990	0	2	+	11, 1	0, 1	1, 1	II^*, I_1	2 : 2
b1(A)	0	-1	0	0	-4	0	2	-	10, 1	0, 1	2, 1	III^*, I_1	2 : 2
b2(B)	0	-1	0	-40	-84	0	2	+	11, 2	0, 2	1, 2	II^*, I_2	2 : 1

57 $N = 57 = 3 \cdot 19$ (3 isogeny classes)**57**

a1(E)	0	-1	1	-2	2	1	1	-	2, 1	2, 1	2, 1	I_2, I_1	
b1(B)	1	0	1	-7	5	0	4	+	2, 2	2, 2	2, 2	I_2, I_2	2 : 2, 3, 4
b2(A)	1	0	1	-2	-1	0	2	+	1, 1	1, 1	1, 1	I_1, I_1	2 : 1
b3(C)	1	0	1	-102	385	0	4	+	4, 1	4, 1	4, 1	I_4, I_1	2 : 1
b4(D)	1	0	1	8	29	0	2	-	1, 4	1, 4	1, 2	I_1, I_4	2 : 1
c1(F)	0	1	1	20	-32	0	5	-	10, 1	10, 1	10, 1	I_{10}, I_1	5 : 2
c2(G)	0	1	1	-4390	-113432	0	1	-	2, 5	2, 5	2, 1	I_2, I_5	5 : 1

58 $N = 58 = 2 \cdot 29$ (2 isogeny classes)**58**

a1(A)	1	-1	0	-1	1	1	1	-	2, 1	2, 1	2, 1	I_2, I_1	
b1(B)	1	1	1	5	9	0	5	-	10, 1	10, 1	10, 1	I_{10}, I_1	5 : 2
b2(C)	1	1	1	-455	-3951	0	1	-	2, 5	2, 5	2, 1	I_2, I_5	5 : 1

61 $N = 61 = 61$ (1 isogeny class)**61**

a1(A)	1	0	0	-2	1	1	1	-	1	1	1	I_1	
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62 $N = 62 = 2 \cdot 31$ (1 isogeny class)**62**

a1(A)	1	-1	1	-1	1	0	4	-	4, 1	4, 1	4, 1	I_4, I_1	2 : 2
a2(B)	1	-1	1	-21	41	0	4	+	2, 2	2, 2	2, 2	I_2, I_2	2 : 1, 3, 4
a3(C)	1	-1	1	-31	5	0	2	+	1, 4	1, 4	1, 2	I_1, I_4	2 : 2
a4(D)	1	-1	1	-331	2397	0	2	+	1, 1	1, 1	1, 1	I_1, I_1	2 : 2

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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63 $N = 63 = 3^2 \cdot 7$ (1 isogeny class)**63**

a1(A)	1	-1	0	9	0	0	2	-	8, 1	2, 1	2, 1	I_2^*, I_1	2 : 2
a2(B)	1	-1	0	-36	27	0	4	+	10, 2	4, 2	4, 2	I_4^*, I_2	2 : 1, 3, 4
a3(C)	1	-1	0	-351	-2430	0	2	+	14, 1	8, 1	4, 1	I_8^*, I_1	2 : 2
a4(D)	1	-1	0	-441	3672	0	4	+	8, 4	2, 4	4, 2	I_2^*, I_4	2 : 2, 5, 6
a5(F)	1	-1	0	-7056	229905	0	4	+	7, 2	1, 2	4, 2	I_1^*, I_2	2 : 4
a6(E)	1	-1	0	-306	5859	0	2	-	7, 8	1, 8	2, 2	I_1^*, I_8	2 : 4

64 $N = 64 = 2^6$ (1 isogeny class)**64**

a1(B)	0	0	0	-4	0	0	4	+	12	0	4	I_2^*	2 : 2, 3, 4
a2(C)	0	0	0	-44	-112	0	2	+	15	0	2	I_5^*	2 : 1
a3(D)	0	0	0	-44	112	0	4	+	15	0	4	I_5^*	2 : 1
a4(A)	0	0	0	1	0	0	2	-	6	0	1	II	2 : 1

65 $N = 65 = 5 \cdot 13$ (1 isogeny class)**65**

a1(A)	1	0	0	-1	0	1	2	+	1, 1	1, 1	1, 1	I_1, I_1	2 : 2
a2(B)	1	0	0	4	1	1	2	-	2, 2	2, 2	2, 2	I_2, I_2	2 : 1

66 $N = 66 = 2 \cdot 3 \cdot 11$ (3 isogeny classes)**66**

a1(A)	1	0	1	-6	4	0	6	+	2, 3, 1	2, 3, 1	2, 3, 1	I_2, I_3, I_1	2 : 2; 3 : 3
a2(B)	1	0	1	4	20	0	6	-	1, 6, 2	1, 6, 2	1, 6, 2	I_1, I_6, I_2	2 : 1; 3 : 4
a3(C)	1	0	1	-81	-284	0	2	+	6, 1, 3	6, 1, 3	2, 1, 1	I_6, I_1, I_3	2 : 4; 3 : 1
a4(D)	1	0	1	-41	-556	0	2	-	3, 2, 6	3, 2, 6	1, 2, 2	I_3, I_2, I_6	2 : 3; 3 : 2
b1(E)	1	1	1	-2	-1	0	4	+	4, 1, 1	4, 1, 1	4, 1, 1	I_4, I_1, I_1	2 : 2
b2(F)	1	1	1	-22	-49	0	4	+	2, 2, 2	2, 2, 2	2, 2, 2	I_2, I_2, I_2	2 : 1, 3, 4
b3(H)	1	1	1	-352	-2689	0	2	+	1, 1, 1	1, 1, 1	1, 1, 1	I_1, I_1, I_1	2 : 2
b4(G)	1	1	1	-12	-81	0	2	-	1, 4, 4	1, 4, 4	1, 2, 2	I_1, I_4, I_4	2 : 2
c1(I)	1	0	0	-45	81	0	10	+	10, 5, 1	10, 5, 1	10, 5, 1	I_{10}, I_5, I_1	2 : 2; 5 : 3
c2(J)	1	0	0	115	561	0	10	-	5, 10, 2	5, 10, 2	5, 10, 2	I_5, I_{10}, I_2	2 : 1; 5 : 4
c3(L)	1	0	0	-10065	-389499	0	2	+	2, 1, 5	2, 1, 5	2, 1, 5	I_2, I_1, I_5	2 : 4; 5 : 1
c4(K)	1	0	0	-10055	-390309	0	2	-	1, 2, 10	1, 2, 10	1, 2, 10	I_1, I_2, I_{10}	2 : 3; 5 : 2

67 $N = 67 = 67$ (1 isogeny class)**67**

a1(A)	0	1	1	-12	-21	0	1	-	1	1	1	I_1	
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	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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69 **69** $N = 69 = 3 \cdot 23$ (1 isogeny class)

a1(A)	1	0	1	-1	-1	0	2	-	2, 1	2, 1	2, 1	I_2, I_1	2 : 2
a2(B)	1	0	1	-16	-25	0	2	+	1, 2	1, 2	1, 2	I_1, I_2	2 : 1

70 **70** $N = 70 = 2 \cdot 5 \cdot 7$ (1 isogeny class)

a1(A)	1	-1	1	2	-3	0	4	-	4, 2, 1	4, 2, 1	4, 2, 1	I_4, I_2, I_1	2 : 2
a2(B)	1	-1	1	-18	-19	0	4	+	2, 4, 2	2, 4, 2	2, 2, 2	I_2, I_4, I_2	2 : 1, 3, 4
a3(D)	1	-1	1	-268	-1619	0	2	+	1, 2, 4	1, 2, 4	1, 2, 2	I_1, I_2, I_4	2 : 2
a4(C)	1	-1	1	-88	317	0	2	+	1, 8, 1	1, 8, 1	1, 2, 1	I_1, I_8, I_1	2 : 2

72 **72** $N = 72 = 2^3 \cdot 3^2$ (1 isogeny class)

a1(A)	0	0	0	6	-7	0	4	-	4, 7	0, 1	2, 4	III, I_1^*	2 : 2
a2(B)	0	0	0	-39	-70	0	4	+	8, 8	0, 2	2, 4	I_1^*, I_2^*	2 : 1, 3, 4
a3(D)	0	0	0	-579	-5362	0	2	+	10, 7	0, 1	2, 2	III^*, I_1^*	2 : 2
a4(C)	0	0	0	-219	1190	0	4	+	10, 10	0, 4	2, 4	III^*, I_4^*	2 : 2, 5, 6
a5(F)	0	0	0	-3459	78302	0	2	+	11, 8	0, 2	1, 2	II^*, I_2^*	2 : 4
a6(E)	0	0	0	141	4718	0	2	-	11, 14	0, 8	1, 4	II^*, I_8^*	2 : 4

73 **73** $N = 73 = 73$ (1 isogeny class)

a1(B)	1	-1	0	4	-3	0	2	-	2	2	2	I_2	2 : 2
a2(A)	1	-1	0	-1	0	0	2	+	1	1	1	I_1	2 : 1

75 **75** $N = 75 = 3 \cdot 5^2$ (3 isogeny classes)

a1(A)	0	-1	1	-8	-7	0	1	-	1, 4	1, 0	1, 1	I_1, IV	5 : 2
a2(B)	0	-1	1	42	443	0	1	-	5, 8	5, 0	1, 1	I_5, IV^*	5 : 1
b1(E)	1	0	1	-1	23	0	2	-	1, 7	1, 1	1, 2	I_1, I_1^*	2 : 2
b2(F)	1	0	1	-126	523	0	4	+	2, 8	2, 2	2, 4	I_2, I_2^*	2 : 1, 3, 4
b3(G)	1	0	1	-251	-727	0	4	+	4, 10	4, 4	4, 4	I_4, I_4^*	2 : 2, 5, 6
b4(H)	1	0	1	-2001	34273	0	2	+	1, 7	1, 1	1, 2	I_1, I_1^*	2 : 2
b5(I)	1	0	1	-3376	-75727	0	4	+	8, 8	8, 2	8, 4	I_8, I_2^*	2 : 3, 7, 8
b6(J)	1	0	1	874	-5227	0	2	-	2, 14	2, 8	2, 4	I_2, I_8^*	2 : 3
b7(L)	1	0	1	-54001	-4834477	0	2	+	4, 7	4, 1	4, 4	I_4, I_1^*	2 : 5
b8(K)	1	0	1	-2751	-104477	0	4	-	16, 7	16, 1	16, 4	I_{16}, I_1^*	2 : 5
c1(C)	0	1	1	2	4	0	5	-	5, 2	5, 0	5, 1	I_5, II	5 : 2
c2(D)	0	1	1	-208	-1256	0	1	-	1, 10	1, 0	1, 1	I_1, II^*	5 : 1

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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76 **76**
 $N = 76 = 2^2 \cdot 19$ (1 isogeny class)

a1(A)	0	-1	0	-21	-31	0	1	-	8, 1	0, 1	1, 1	IV*, I ₁	
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77 **77**
 $N = 77 = 7 \cdot 11$ (3 isogeny classes)

a1(F)	0	0	1	2	0	1	1	-	2, 1	2, 1	2, 1	I ₂ , I ₁	
b1(D)	0	1	1	-49	600	0	3	-	6, 3	6, 3	6, 1	I ₆ , I ₃	3 : 2, 3
b2(E)	0	1	1	441	-15815	0	1	-	2, 9	2, 9	2, 1	I ₂ , I ₉	3 : 1
b3(C)	0	1	1	-89	295	0	3	-	2, 1	2, 1	2, 1	I ₂ , I ₁	3 : 1
c1(A)	1	1	0	4	11	0	2	-	3, 2	3, 2	1, 2	I ₃ , I ₂	2 : 2
c2(B)	1	1	0	-51	110	0	2	+	6, 1	6, 1	2, 1	I ₆ , I ₁	2 : 1

78 **78**
 $N = 78 = 2 \cdot 3 \cdot 13$ (1 isogeny class)

a1(A)	1	1	0	-19	685	0	2	-	16, 5, 1	16, 5, 1	2, 1, 1	I ₁₆ , I ₅ , I ₁	2 : 2
a2(B)	1	1	0	-1299	17325	0	4	+	8, 10, 2	8, 10, 2	2, 2, 2	I ₈ , I ₁₀ , I ₂	2 : 1, 3, 4
a3(C)	1	1	0	-2339	-15747	0	2	+	4, 20, 1	4, 20, 1	2, 2, 1	I ₄ , I ₂₀ , I ₁	2 : 2
a4(D)	1	1	0	-20739	1140957	0	4	+	4, 5, 4	4, 5, 4	2, 1, 4	I ₄ , I ₅ , I ₄	2 : 2

79 **79**
 $N = 79 = 79$ (1 isogeny class)

a1(A)	1	1	1	-2	0	1	1	+	1	1	1	I ₁	
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80 **80**
 $N = 80 = 2^4 \cdot 5$ (2 isogeny classes)

a1(F)	0	0	0	-7	6	0	4	+	8, 2	0, 2	2, 2	I ₀ *, I ₂	2 : 2, 3, 4
a2(E)	0	0	0	-2	-1	0	2	+	4, 1	0, 1	1, 1	II, I ₁	2 : 1
a3(H)	0	0	0	-107	426	0	4	+	10, 1	0, 1	4, 1	I ₂ *, I ₁	2 : 1
a4(G)	0	0	0	13	34	0	4	-	10, 4	0, 4	2, 4	I ₂ *, I ₄	2 : 1
b1(B)	0	-1	0	4	-4	0	2	-	8, 2	0, 2	1, 2	I ₀ *, I ₂	2 : 2; 3 : 3
b2(A)	0	-1	0	-1	0	0	2	+	4, 1	0, 1	1, 1	II, I ₁	2 : 1; 3 : 4
b3(D)	0	-1	0	-36	140	0	2	-	8, 6	0, 6	1, 2	I ₀ *, I ₆	2 : 4; 3 : 1
b4(C)	0	-1	0	-41	116	0	2	+	4, 3	0, 3	1, 1	II, I ₃	2 : 3; 3 : 2

82 **82**
 $N = 82 = 2 \cdot 41$ (1 isogeny class)

a1(A)	1	0	1	-2	0	1	2	+	2, 1	2, 1	2, 1	I ₂ , I ₁	2 : 2
a2(B)	1	0	1	-12	-16	1	2	+	1, 2	1, 2	1, 2	I ₁ , I ₂	2 : 1

83 **83**
 $N = 83 = 83$ (1 isogeny class)

a1(A)	1	1	1	1	0	1	1	-	1	1	1	I ₁	
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	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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84 $N = 84 = 2^2 \cdot 3 \cdot 7$ (2 isogeny classes)**84**

a1(C)	0	1	0	7	0	0	6	−	4, 3, 2	0, 3, 2	3, 3, 2	IV, I ₃ , I ₂	2 : 2; 3 : 3
a2(D)	0	1	0	−28	−28	0	6	+	8, 6, 1	0, 6, 1	3, 6, 1	IV*, I ₆ , I ₁	2 : 1; 3 : 4
a3(E)	0	1	0	−113	−516	0	2	−	4, 1, 6	0, 1, 6	1, 1, 6	IV, I ₁ , I ₆	2 : 4; 3 : 1
a4(F)	0	1	0	−1828	−30700	0	2	+	8, 2, 3	0, 2, 3	1, 2, 3	IV*, I ₂ , I ₃	2 : 3; 3 : 2
b1(A)	0	−1	0	−1	−2	0	2	−	4, 1, 2	0, 1, 2	1, 1, 2	IV, I ₁ , I ₂	2 : 2
b2(B)	0	−1	0	−36	−72	0	2	+	8, 2, 1	0, 2, 1	1, 2, 1	IV*, I ₂ , I ₁	2 : 1

85 $N = 85 = 5 \cdot 17$ (1 isogeny class)**85**

a1(A)	1	1	0	−8	−13	0	2	+	2, 1	2, 1	2, 1	I ₂ , I ₁	2 : 2
a2(B)	1	1	0	−3	−22	0	2	−	4, 2	4, 2	2, 2	I ₄ , I ₂	2 : 1

88 $N = 88 = 2^3 \cdot 11$ (1 isogeny class)**88**

a1(A)	0	0	0	−4	4	1	1	−	8, 1	0, 1	4, 1	I ₁ *, I ₁	
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89 $N = 89 = 89$ (2 isogeny classes)**89**

a1(C)	1	1	1	−1	0	1	1	−	1	1	1	I ₁	
b1(A)	1	1	0	4	5	0	2	−	2	2	2	I ₂	2 : 2
b2(B)	1	1	0	−1	0	0	2	+	1	1	1	I ₁	2 : 1

90 $N = 90 = 2 \cdot 3^2 \cdot 5$ (3 isogeny classes)**90**

a1(M)	1	−1	0	6	0	0	6	−	2, 3, 3	2, 0, 3	2, 2, 3	I ₂ , III, I ₃	2 : 2; 3 : 3
a2(N)	1	−1	0	−24	18	0	6	+	1, 3, 6	1, 0, 6	1, 2, 6	I ₁ , III, I ₆	2 : 1; 3 : 4
a3(O)	1	−1	0	−69	−235	0	2	−	6, 9, 1	6, 0, 1	2, 2, 1	I ₆ , III*, I ₁	2 : 4; 3 : 1
a4(P)	1	−1	0	−1149	−14707	0	2	+	3, 9, 2	3, 0, 2	1, 2, 2	I ₃ , III*, I ₂	2 : 3; 3 : 2
b1(A)	1	−1	1	−8	11	0	6	−	6, 3, 1	6, 0, 1	6, 2, 1	I ₆ , III, I ₁	2 : 2; 3 : 3
b2(B)	1	−1	1	−128	587	0	6	+	3, 3, 2	3, 0, 2	3, 2, 2	I ₃ , III, I ₂	2 : 1; 3 : 4
b3(C)	1	−1	1	52	−53	0	2	−	2, 9, 3	2, 0, 3	2, 2, 1	I ₂ , III*, I ₃	2 : 4; 3 : 1
b4(D)	1	−1	1	−218	−269	0	2	+	1, 9, 6	1, 0, 6	1, 2, 2	I ₁ , III*, I ₆	2 : 3; 3 : 2

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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90 $N = 90 = 2 \cdot 3^2 \cdot 5$ (continued)**90**

c1(E)	1	-1	1	13	-61	0	4	-	4, 9, 1	4, 3, 1	4, 4, 1	I_4, I_3^*, I_1	$\mathbf{2} : 2; \mathbf{3} : 3$
c2(F)	1	-1	1	-167	-709	0	4	+	2, 12, 2	2, 6, 2	2, 4, 2	I_2, I_6^*, I_2	$\mathbf{2} : 1, 4, 5; \mathbf{3} : 6$
c3(G)	1	-1	1	-122	1721	0	12	-	12, 7, 3	12, 1, 3	12, 4, 3	I_{12}, I_1^*, I_3	$\mathbf{2} : 6; \mathbf{3} : 1$
c4(I)	1	-1	1	-2597	-50281	0	2	+	1, 9, 4	1, 3, 4	1, 2, 4	I_1, I_3^*, I_4	$\mathbf{2} : 2; \mathbf{3} : 7$
c5(H)	1	-1	1	-617	5231	0	2	+	1, 18, 1	1, 12, 1	1, 4, 1	I_1, I_{12}^*, I_1	$\mathbf{2} : 2; \mathbf{3} : 8$
c6(J)	1	-1	1	-3002	63929	0	12	+	6, 8, 6	6, 2, 6	6, 4, 6	I_6, I_2^*, I_6	$\mathbf{2} : 3, 7, 8; \mathbf{3} : 2$
c7(L)	1	-1	1	-4082	14681	0	6	+	3, 7, 12	3, 1, 12	3, 2, 12	I_3, I_1^*, I_{12}	$\mathbf{2} : 6; \mathbf{3} : 4$
c8(K)	1	-1	1	-48002	4059929	0	6	+	3, 10, 3	3, 4, 3	3, 4, 3	I_3, I_4^*, I_3	$\mathbf{2} : 6; \mathbf{3} : 5$

91 $N = 91 = 7 \cdot 13$ (2 isogeny classes)**91**

a1(A)	0	0	1	1	0	1	1	-	1, 1	1, 1	1, 1	I_1, I_1	
b1(B)	0	1	1	-7	5	1	3	-	1, 1	1, 1	1, 1	I_1, I_1	$\mathbf{3} : 2$
b2(C)	0	1	1	13	42	1	3	-	3, 3	3, 3	3, 3	I_3, I_3	$\mathbf{3} : 1, 3$
b3(D)	0	1	1	-117	-1245	1	1	-	9, 1	9, 1	9, 1	I_9, I_1	$\mathbf{3} : 2$

92 $N = 92 = 2^2 \cdot 23$ (2 isogeny classes)**92**

a1(A)	0	1	0	2	1	0	3	-	4, 1	0, 1	3, 1	IV, I_1	$\mathbf{3} : 2$
a2(B)	0	1	0	-18	-43	0	1	-	4, 3	0, 3	1, 1	IV, I_3	$\mathbf{3} : 1$
b1(C)	0	0	0	-1	1	1	1	-	4, 1	0, 1	3, 1	IV, I_1	

94 $N = 94 = 2 \cdot 47$ (1 isogeny class)**94**

a1(A)	1	-1	1	0	-1	0	2	-	2, 1	2, 1	2, 1	I_2, I_1	$\mathbf{2} : 2$
a2(B)	1	-1	1	-10	-9	0	2	+	1, 2	1, 2	1, 2	I_1, I_2	$\mathbf{2} : 1$

96 $N = 96 = 2^5 \cdot 3$ (2 isogeny classes)**96**

a1(E)	0	1	0	-2	0	0	4	+	6, 2	0, 2	2, 2	III, I_2	$\mathbf{2} : 2, 3, 4$
a2(F)	0	1	0	-17	-33	0	2	+	12, 1	0, 1	2, 1	I_3^*, I_1	$\mathbf{2} : 1$
a3(H)	0	1	0	-32	60	0	2	+	9, 1	0, 1	1, 1	I_0^*, I_1	$\mathbf{2} : 1$
a4(G)	0	1	0	8	8	0	4	-	9, 4	0, 4	2, 4	I_0^*, I_4	$\mathbf{2} : 1$
b1(A)	0	-1	0	-2	0	0	4	+	6, 2	0, 2	2, 2	III, I_2	$\mathbf{2} : 2, 3, 4$
b2(D)	0	-1	0	-32	-60	0	2	+	9, 1	0, 1	2, 1	I_0^*, I_1	$\mathbf{2} : 1$
b3(B)	0	-1	0	-17	33	0	4	+	12, 1	0, 1	4, 1	I_3^*, I_1	$\mathbf{2} : 1$
b4(C)	0	-1	0	8	-8	0	2	-	9, 4	0, 4	1, 2	I_0^*, I_4	$\mathbf{2} : 1$

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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98 $N = 98 = 2 \cdot 7^2$ (1 isogeny class)**98**

a1(B)	1	1	0	-25	-111	0	2	-	2, 7	2, 1	2, 2	I_2, I_1^*	2 : 2; 3 : 3
a2(A)	1	1	0	-515	-4717	0	2	+	1, 8	1, 2	1, 4	I_1, I_2^*	2 : 1; 3 : 4
a3(D)	1	1	0	220	2192	0	2	-	6, 9	6, 3	2, 2	I_6, I_3^*	2 : 4; 3 : 1, 5
a4(C)	1	1	0	-1740	22184	0	2	+	3, 12	3, 6	1, 4	I_3, I_6^*	2 : 3; 3 : 2, 6
a5(F)	1	1	0	-8355	291341	0	2	-	18, 7	18, 1	2, 2	I_{18}, I_1^*	2 : 6; 3 : 3
a6(E)	1	1	0	-133795	18781197	0	2	+	9, 8	9, 2	1, 4	I_9, I_2^*	2 : 5; 3 : 4

99 $N = 99 = 3^2 \cdot 11$ (4 isogeny classes)**99**

a1(A)	1	-1	1	-2	0	1	2	+	3, 1	0, 1	2, 1	III, I_1	2 : 2
a2(B)	1	-1	1	-17	30	1	2	+	3, 2	0, 2	2, 2	III, I_2	2 : 1
b1(H)	1	-1	1	-59	186	0	4	+	9, 1	3, 1	4, 1	I_3^*, I_1	2 : 2
b2(I)	1	-1	1	-104	-102	0	4	+	12, 2	6, 2	4, 2	I_6^*, I_2	2 : 1, 3, 4
b3(K)	1	-1	1	-1319	-18084	0	2	+	9, 4	3, 4	2, 2	I_3^*, I_4	2 : 2
b4(J)	1	-1	1	391	-1092	0	2	-	18, 1	12, 1	4, 1	I_{12}^*, I_1	2 : 2
c1(F)	1	-1	0	-15	8	0	2	+	9, 1	0, 1	2, 1	III^*, I_1	2 : 2
c2(G)	1	-1	0	-150	-667	0	2	+	9, 2	0, 2	2, 2	III^*, I_2	2 : 1
d1(C)	0	0	1	-3	-5	0	1	-	6, 1	0, 1	1, 1	I_0^*, I_1	5 : 2
d2(D)	0	0	1	-93	625	0	1	-	6, 5	0, 5	1, 1	I_0^*, I_5	5 : 1, 3
d3(E)	0	0	1	-70383	7187035	0	1	-	6, 1	0, 1	1, 1	I_0^*, I_1	5 : 2

100 $N = 100 = 2^2 \cdot 5^2$ (1 isogeny class)**100**

a1(A)	0	-1	0	-33	62	0	2	+	4, 7	0, 1	1, 2	IV, I_1^*	2 : 2; 3 : 3
a2(B)	0	-1	0	92	312	0	2	-	8, 8	0, 2	1, 4	IV^*, I_2^*	2 : 1; 3 : 4
a3(C)	0	-1	0	-1033	-12438	0	2	+	4, 9	0, 3	3, 2	IV, I_3^*	2 : 4; 3 : 1
a4(D)	0	-1	0	-908	-15688	0	2	-	8, 12	0, 6	3, 4	IV^*, I_6^*	2 : 3; 3 : 2

101 $N = 101 = 101$ (1 isogeny class)**101**

a1(A)	0	1	1	-1	-1	1	1	+	1	1	1	I_1	
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102 $N = 102 = 2 \cdot 3 \cdot 17$ (3 isogeny classes)**102**

a1(E)	1	1	0	-2	0	1	2	+	2, 2, 1	2, 2, 1	2, 2, 1	I_2, I_2, I_1	2 : 2
a2(F)	1	1	0	8	10	1	2	-	1, 4, 2	1, 4, 2	1, 2, 2	I_1, I_4, I_2	2 : 1

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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102 $N = 102 = 2 \cdot 3 \cdot 17$ (continued)**102**

b1(G)	1	0	0	-34	68	0	8	+	8, 4, 1	8, 4, 1	8, 4, 1	I_8, I_4, I_1	2 : 2
b2(H)	1	0	0	-114	-396	0	8	+	4, 8, 2	4, 8, 2	4, 8, 2	I_4, I_8, I_2	2 : 1, 3, 4
b3(J)	1	0	0	-1734	-27936	0	4	+	2, 4, 4	2, 4, 4	2, 4, 4	I_2, I_4, I_4	2 : 2, 5, 6
b4(I)	1	0	0	226	-2232	0	4	-	2, 16, 1	2, 16, 1	2, 16, 1	I_2, I_{16}, I_1	2 : 2
b5(L)	1	0	0	-27744	-1781010	0	2	+	1, 2, 2	1, 2, 2	1, 2, 2	I_1, I_2, I_2	2 : 3
b6(K)	1	0	0	-1644	-30942	0	2	-	1, 2, 8	1, 2, 8	1, 2, 8	I_1, I_2, I_8	2 : 3
c1(A)	1	0	1	-256	1550	0	6	+	6, 6, 1	6, 6, 1	2, 6, 1	I_6, I_6, I_1	2 : 2; 3 : 3
c2(B)	1	0	1	-216	2062	0	6	-	3, 12, 2	3, 12, 2	1, 12, 2	I_3, I_{12}, I_2	2 : 1; 3 : 4
c3(C)	1	0	1	-751	-6046	0	2	+	18, 2, 3	18, 2, 3	2, 2, 1	I_{18}, I_2, I_3	2 : 4; 3 : 1
c4(D)	1	0	1	1809	-37790	0	2	-	9, 4, 6	9, 4, 6	1, 4, 2	I_9, I_4, I_6	2 : 3; 3 : 2

104 $N = 104 = 2^3 \cdot 13$ (1 isogeny class)**104**

a1(A)	0	1	0	-16	-32	0	1	-	11, 1	0, 1	1, 1	Π^*, I_1	
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105 $N = 105 = 3 \cdot 5 \cdot 7$ (1 isogeny class)**105**

a1(A)	1	0	1	-3	1	0	2	+	1, 1, 1	1, 1, 1	1, 1, 1	I_1, I_1, I_1	2 : 2
a2(B)	1	0	1	-8	-7	0	4	+	2, 2, 2	2, 2, 2	2, 2, 2	I_2, I_2, I_2	2 : 1, 3, 4
a3(D)	1	0	1	-113	-469	0	2	+	1, 4, 1	1, 4, 1	1, 4, 1	I_1, I_4, I_1	2 : 2
a4(C)	1	0	1	17	-37	0	4	-	4, 1, 4	4, 1, 4	4, 1, 4	I_4, I_1, I_4	2 : 2

106 $N = 106 = 2 \cdot 53$ (4 isogeny classes)**106**

a1(B)	1	0	0	1	1	0	3	-	3, 1	3, 1	3, 1	I_3, I_1	3 : 2
a2(C)	1	0	0	-9	-29	0	1	-	1, 3	1, 3	1, 1	I_1, I_3	3 : 1
b1(A)	1	1	0	-7	5	1	1	-	4, 1	4, 1	2, 1	I_4, I_1	
c1(E)	1	0	0	-283	-2351	0	3	-	24, 1	24, 1	24, 1	I_{24}, I_1	3 : 2
c2(F)	1	0	0	-24603	-1487407	0	1	-	8, 3	8, 3	8, 1	I_8, I_3	3 : 1
d1(D)	1	1	0	-27	-67	0	1	-	5, 1	5, 1	1, 1	I_5, I_1	

108 $N = 108 = 2^2 \cdot 3^3$ (1 isogeny class)**108**

a1(A)	0	0	0	0	4	0	3	-	8, 3	0, 0	3, 1	IV^*, Π	3 : 2
a2(B)	0	0	0	0	-108	0	1	-	8, 9	0, 0	1, 1	IV^*, IV^*	3 : 1

109 $N = 109 = 109$ (1 isogeny class)**109**

a1(A)	1	-1	0	-8	-7	0	1	-	1	1	1	I_1	
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	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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110 $N = 110 = 2 \cdot 5 \cdot 11$ (3 isogeny classes)**110**

a1(C)	1	1	1	10	-45	0	5	-	5, 5, 1	5, 5, 1	5, 5, 1	I_5, I_5, I_1	5 : 2
a2(D)	1	1	1	-5940	-178685	0	1	-	1, 1, 5	1, 1, 5	1, 1, 5	I_1, I_1, I_5	5 : 1
b1(A)	1	0	0	-1	1	0	3	-	3, 1, 1	3, 1, 1	3, 1, 1	I_3, I_1, I_1	3 : 2
b2(B)	1	0	0	9	-25	0	1	-	1, 3, 3	1, 3, 3	1, 1, 1	I_1, I_3, I_3	3 : 1
c1(E)	1	0	1	-89	316	0	3	-	7, 1, 3	7, 1, 3	1, 1, 3	I_7, I_1, I_3	3 : 2
c2(F)	1	0	1	296	1702	0	1	-	21, 3, 1	21, 3, 1	1, 1, 1	I_{21}, I_3, I_1	3 : 1

112 $N = 112 = 2^4 \cdot 7$ (3 isogeny classes)**112**

a1(K)	0	1	0	0	4	1	2	-	10, 1	0, 1	4, 1	I_2^*, I_1	2 : 2
a2(L)	0	1	0	-40	84	1	2	+	11, 2	0, 2	4, 2	I_3^*, I_2	2 : 1
b1(A)	0	0	0	1	-2	0	2	-	8, 1	0, 1	2, 1	I_0^*, I_1	2 : 2
b2(B)	0	0	0	-19	-30	0	4	+	10, 2	0, 2	4, 2	I_2^*, I_2	2 : 1, 3, 4
b3(D)	0	0	0	-299	-1990	0	2	+	11, 1	0, 1	4, 1	I_3^*, I_1	2 : 2
b4(C)	0	0	0	-59	138	0	4	+	11, 4	0, 4	2, 4	I_3^*, I_4	2 : 2
c1(E)	0	-1	0	-8	-16	0	2	-	14, 1	2, 1	4, 1	I_6^*, I_1	2 : 2; 3 : 3
c2(F)	0	-1	0	-168	-784	0	2	+	13, 2	1, 2	2, 2	I_5^*, I_2	2 : 1; 3 : 4
c3(G)	0	-1	0	72	368	0	2	-	18, 3	6, 3	4, 1	I_{10}^*, I_3	2 : 4; 3 : 1, 5
c4(H)	0	-1	0	-568	4464	0	2	+	15, 6	3, 6	2, 2	I_7^*, I_6	2 : 3; 3 : 2, 6
c5(I)	0	-1	0	-2728	55920	0	2	-	30, 1	18, 1	4, 1	I_{22}^*, I_1	2 : 6; 3 : 3
c6(J)	0	-1	0	-43688	3529328	0	2	+	21, 2	9, 2	2, 2	I_{13}^*, I_2	2 : 5; 3 : 4

113 $N = 113 = 113$ (1 isogeny class)**113**

a1(B)	1	1	1	3	-4	0	2	-	2	2	2	I_2	2 : 2
a2(A)	1	1	1	-2	-2	0	2	+	1	1	1	I_1	2 : 1

114 $N = 114 = 2 \cdot 3 \cdot 19$ (3 isogeny classes)**114**

a1(A)	1	0	0	-8	0	0	6	+	6, 3, 1	6, 3, 1	6, 3, 1	I_6, I_3, I_1	2 : 2; 3 : 3
a2(B)	1	0	0	32	8	0	6	-	3, 6, 2	3, 6, 2	3, 6, 2	I_3, I_6, I_2	2 : 1; 3 : 4
a3(C)	1	0	0	-428	-3444	0	2	+	2, 1, 3	2, 1, 3	2, 1, 3	I_2, I_1, I_3	2 : 4; 3 : 1
a4(D)	1	0	0	-418	-3610	0	2	-	1, 2, 6	1, 2, 6	1, 2, 6	I_1, I_2, I_6	2 : 3; 3 : 2
b1(E)	1	1	0	-95	-399	0	2	+	2, 5, 1	2, 5, 1	2, 1, 1	I_2, I_5, I_1	2 : 2
b2(F)	1	1	0	-85	-473	0	2	-	1, 10, 2	1, 10, 2	1, 2, 2	I_1, I_{10}, I_2	2 : 1

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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114 $N = 114 = 2 \cdot 3 \cdot 19$ (continued)**114**

c1(G)	1	1	1	-352	-2431	0	4	+	20, 3, 1	20, 3, 1	20, 1, 1	I_{20}, I_3, I_1	2 : 2
c2(H)	1	1	1	-5472	-158079	0	4	+	10, 6, 2	10, 6, 2	10, 2, 2	I_{10}, I_6, I_2	2 : 1, 3, 4
c3(J)	1	1	1	-87552	-10007679	0	2	+	5, 3, 1	5, 3, 1	5, 1, 1	I_5, I_3, I_1	2 : 2
c4(I)	1	1	1	-5312	-167551	0	2	-	5, 12, 4	5, 12, 4	5, 2, 2	I_5, I_{12}, I_4	2 : 2

115 $N = 115 = 5 \cdot 23$ (1 isogeny class)**115**

a1(A)	0	0	1	7	-11	0	1	-	5, 1	5, 1	1, 1	I_5, I_1	
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116 $N = 116 = 2^2 \cdot 29$ (3 isogeny classes)**116**

a1(E)	0	0	0	-4831	-129242	0	1	-	8, 1	0, 1	3, 1	IV^*, I_1	
b1(A)	0	1	0	-4	4	0	3	-	8, 1	0, 1	3, 1	IV^*, I_1	3 : 2
b2(B)	0	1	0	36	-76	0	1	-	8, 3	0, 3	1, 1	IV^*, I_3	3 : 1
c1(D)	0	-1	0	-4	24	0	2	-	8, 2	0, 2	1, 2	IV^*, I_2	2 : 2
c2(C)	0	-1	0	-9	14	0	2	+	4, 1	0, 1	1, 1	IV, I_1	2 : 1

117 $N = 117 = 3^2 \cdot 13$ (1 isogeny class)**117**

a1(A)	1	-1	1	4	6	1	4	-	7, 1	1, 1	4, 1	I_1^*, I_1	2 : 2
a2(B)	1	-1	1	-41	96	1	4	+	8, 2	2, 2	4, 2	I_2^*, I_2	2 : 1, 3, 4
a3(D)	1	-1	1	-176	-768	1	2	+	7, 4	1, 4	2, 4	I_1^*, I_4	2 : 2
a4(C)	1	-1	1	-626	6180	1	2	+	10, 1	4, 1	4, 1	I_4^*, I_1	2 : 2

118 $N = 118 = 2 \cdot 59$ (4 isogeny classes)**118**

a1(A)	1	1	0	1	1	1	1	-	2, 1	2, 1	2, 1	I_2, I_1	
b1(B)	1	1	1	-25	39	0	5	-	10, 1	10, 1	10, 1	I_{10}, I_1	5 : 2
b2(C)	1	1	1	115	-2481	0	1	-	2, 5	2, 5	2, 1	I_2, I_5	5 : 1
c1(D)	1	1	1	-4	-5	0	1	-	1, 1	1, 1	1, 1	I_1, I_1	
d1(E)	1	1	0	56	-192	0	1	-	19, 1	19, 1	1, 1	I_{19}, I_1	

120 $N = 120 = 2^3 \cdot 3 \cdot 5$ (2 isogeny classes)**120**

a1(E)	0	1	0	-15	18	0	4	+	4, 2, 1	0, 2, 1	2, 2, 1	III, I_2, I_1	2 : 2
a2(F)	0	1	0	-20	0	0	8	+	8, 4, 2	0, 4, 2	4, 4, 2	I_1^*, I_4, I_2	2 : 1, 3, 4
a3(H)	0	1	0	-200	-1152	0	4	+	10, 2, 4	0, 2, 4	2, 2, 4	III^*, I_2, I_4	2 : 2, 5, 6
a4(G)	0	1	0	80	80	0	4	-	10, 8, 1	0, 8, 1	2, 8, 1	III^*, I_8, I_1	2 : 2
a5(J)	0	1	0	-3200	-70752	0	2	+	11, 1, 2	0, 1, 2	1, 1, 2	II^*, I_1, I_2	2 : 3
a6(I)	0	1	0	-80	-2400	0	2	-	11, 1, 8	0, 1, 8	1, 1, 8	II^*, I_1, I_8	2 : 3

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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120 $N = 120 = 2^3 \cdot 3 \cdot 5$ (continued)**120**

b1(A)	0	1	0	4	0	0	2	−	8, 1, 1	0, 1, 1	2, 1, 1	I_1^*, I_1, I_1	2 : 2
b2(B)	0	1	0	−16	−16	0	4	+	10, 2, 2	0, 2, 2	2, 2, 2	III^*, I_2, I_2	2 : 1, 3, 4
b3(C)	0	1	0	−216	−1296	0	2	+	11, 4, 1	0, 4, 1	1, 4, 1	II^*, I_4, I_1	2 : 2
b4(D)	0	1	0	−136	560	0	2	+	11, 1, 4	0, 1, 4	1, 1, 2	II^*, I_1, I_4	2 : 2

121 $N = 121 = 11^2$ (4 isogeny classes)**121**

a1(H)	1	1	1	−30	−76	0	1	−	2	0	1	II	11 : 2
a2(I)	1	1	1	−305	7888	0	1	−	10	0	1	II^*	11 : 1
b1(D)	0	−1	1	−7	10	1	1	−	3	0	2	III	11 : 2
b2(E)	0	−1	1	−887	−10143	1	1	−	9	0	2	III^*	11 : 1
c1(F)	1	1	0	−2	−7	0	1	−	4	0	1	IV	11 : 2
c2(G)	1	1	0	−3632	82757	0	1	−	8	0	1	IV^*	11 : 1
d1(A)	0	−1	1	−40	−221	0	1	−	7	1	2	I_1^*	5 : 2
d2(B)	0	−1	1	−1250	31239	0	1	−	11	5	2	I_5^*	5 : 1, 3
d3(C)	0	−1	1	−946260	354609639	0	1	−	7	1	2	I_1^*	5 : 2

122 $N = 122 = 2 \cdot 61$ (1 isogeny class)**122**

a1(A)	1	0	1	2	0	1	1	−	4, 1	4, 1	2, 1	I_4, I_1	
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123 $N = 123 = 3 \cdot 41$ (2 isogeny classes)**123**

a1(A)	0	1	1	−10	10	1	5	−	5, 1	5, 1	5, 1	I_5, I_1	5 : 2
a2(B)	0	1	1	20	−890	1	1	−	1, 5	1, 5	1, 5	I_1, I_5	5 : 1
b1(C)	0	−1	1	1	−1	1	1	−	1, 1	1, 1	1, 1	I_1, I_1	

124 $N = 124 = 2^2 \cdot 31$ (2 isogeny classes)**124**

a1(B)	0	1	0	−2	1	1	3	−	4, 1	0, 1	3, 1	IV, I_1	3 : 2
a2(C)	0	1	0	18	−11	1	1	−	4, 3	0, 3	1, 3	IV, I_3	3 : 1
b1(A)	0	0	0	−17	−27	0	1	−	4, 1	0, 1	1, 1	IV, I_1	

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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126 $N = 126 = 2 \cdot 3^2 \cdot 7$ (2 isogeny classes)**126**

a1(A)	1	-1	1	-5	-7	0	2	-	2, 6, 1	2, 0, 1	2, 2, 1	I_2, I_0^*, I_1	2 : 2; 3 : 3
a2(B)	1	-1	1	-95	-331	0	2	+	1, 6, 2	1, 0, 2	1, 2, 2	I_1, I_0^*, I_2	2 : 1; 3 : 4
a3(C)	1	-1	1	40	155	0	6	-	6, 6, 3	6, 0, 3	6, 2, 3	I_6, I_0^*, I_3	2 : 4; 3 : 1, 5
a4(D)	1	-1	1	-320	1883	0	6	+	3, 6, 6	3, 0, 6	3, 2, 6	I_3, I_0^*, I_6	2 : 3; 3 : 2, 6
a5(E)	1	-1	1	-1535	23591	0	6	-	18, 6, 1	18, 0, 1	18, 2, 1	I_{18}, I_0^*, I_1	2 : 6; 3 : 3
a6(F)	1	-1	1	-24575	1488935	0	6	+	9, 6, 2	9, 0, 2	9, 2, 2	I_9, I_0^*, I_2	2 : 5; 3 : 4
b1(G)	1	-1	0	-36	-176	0	2	-	8, 8, 1	8, 2, 1	2, 2, 1	I_8, I_2^*, I_1	2 : 2
b2(H)	1	-1	0	-756	-7808	0	4	+	4, 10, 2	4, 4, 2	2, 4, 2	I_4, I_4^*, I_2	2 : 1, 3, 4
b3(J)	1	-1	0	-12096	-509036	0	2	+	2, 8, 1	2, 2, 1	2, 4, 1	I_2, I_2^*, I_1	2 : 2
b4(I)	1	-1	0	-936	-3668	0	4	+	2, 14, 4	2, 8, 4	2, 4, 2	I_2, I_8^*, I_4	2 : 2, 5, 6
b5(L)	1	-1	0	-8226	286474	0	2	+	1, 10, 8	1, 4, 8	1, 2, 2	I_1, I_4^*, I_8	2 : 4
b6(K)	1	-1	0	3474	-31010	0	2	-	1, 22, 2	1, 16, 2	1, 4, 2	I_1, I_{16}^*, I_2	2 : 4

128 $N = 128 = 2^7$ (4 isogeny classes)**128**

a1(C)	0	1	0	1	1	1	2	-	8	0	2	III	2 : 2
a2(D)	0	1	0	-9	7	1	2	+	13	0	4	I_2^*	2 : 1
b1(F)	0	1	0	3	-5	0	2	-	14	0	2	III*	2 : 2
b2(E)	0	1	0	-2	-2	0	2	+	7	0	1	II	2 : 1
c1(A)	0	-1	0	1	-1	0	2	-	8	0	2	III	2 : 2
c2(B)	0	-1	0	-9	-7	0	2	+	13	0	2	I_2^*	2 : 1
d1(G)	0	-1	0	3	5	0	2	-	14	0	2	III*	2 : 2
d2(H)	0	-1	0	-2	2	0	2	+	7	0	1	II	2 : 1

129 $N = 129 = 3 \cdot 43$ (2 isogeny classes)**129**

a1(E)	0	-1	1	-19	39	1	1	-	4, 1	4, 1	2, 1	I_4, I_1	
b1(B)	1	0	1	-30	-29	0	4	+	6, 2	6, 2	6, 2	I_6, I_2	2 : 2, 3, 4
b2(A)	1	0	1	-25	-49	0	2	+	3, 1	3, 1	3, 1	I_3, I_1	2 : 1
b3(C)	1	0	1	-245	1433	0	4	+	12, 1	12, 1	12, 1	I_{12}, I_1	2 : 1
b4(D)	1	0	1	105	-191	0	2	-	3, 4	3, 4	3, 2	I_3, I_4	2 : 1

130 $N = 130 = 2 \cdot 5 \cdot 13$ (3 isogeny classes)**130**

a1(E)	1	0	1	-33	68	1	6	+	4, 3, 1	4, 3, 1	2, 3, 1	I_4, I_3, I_1	2 : 2; 3 : 3
a2(F)	1	0	1	-13	156	1	6	-	2, 6, 2	2, 6, 2	2, 6, 2	I_2, I_6, I_2	2 : 1; 3 : 4
a3(G)	1	0	1	-208	-1122	1	2	+	12, 1, 3	12, 1, 3	2, 1, 3	I_{12}, I_1, I_3	2 : 4; 3 : 1
a4(H)	1	0	1	112	-4194	1	2	-	6, 2, 6	6, 2, 6	2, 2, 6	I_6, I_2, I_6	2 : 3; 3 : 2

	a_1	a_2	a_3	a_4	a_6	r	$ T $	s	$\text{ord}(\Delta)$	$\text{ord}_-(j)$	c_p	Kodaira	Isogenies
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130

 $N = 130 = 2 \cdot 5 \cdot 13$ (continued)

130

b1(A)	1	-1	1	-7	-1	0	4	+	8, 1, 1	8, 1, 1	8, 1, 1	I ₈ , I ₁ , I ₁	2 : 2
b2(B)	1	-1	1	-87	-289	0	4	+	4, 2, 2	4, 2, 2	4, 2, 2	I ₄ , I ₂ , I ₂	2 : 1, 3, 4
b3(D)	1	-1	1	-1387	-19529	0	2	+	2, 1, 1	2, 1, 1	2, 1, 1	I ₂ , I ₁ , I ₁	2 : 2
b4(C)	1	-1	1	-67	-441	0	4	-	2, 4, 4	2, 4, 4	2, 4, 4	I ₂ , I ₄ , I ₄	2 : 2
c1(J)	1	1	1	-841	-9737	0	2	+	8, 5, 1	8, 5, 1	8, 1, 1	I ₈ , I ₅ , I ₁	2 : 2
c2(I)	1	1	1	-761	-11561	0	2	-	4, 10, 2	4, 10, 2	4, 2, 2	I ₄ , I ₁₀ , I ₂	2 : 1