admcycles Sage worksheet at https://cocalc.com/share/public_paths/f82524a74005bf578

Intersection matrix on M_{0,7}/S_2\times S_5

	1	2	3	4	5	6	7	8	9	10	11	12	13
D_12^2	2	2	-2	0	0	2	-2	0	0	0	0	0	0
D_12^3	-1	0	2	0	1	-1	1	0	1	-1	-1	0	0
D_12^4	0	-1	-1	0	-1	0	2	1	0	2	2	-1	-1
D_12^5	0	-2	2	2	0	0	-4	-2	-4	0	0	6	6
D_1^2	2	0	0	2	0	2	0	1	-1	0	0	0	0
D_1^3	0	2	0	-1	1	0	0	0	2	0	0	0	0
	*		*		*								
relation	0	0	0	0	0	0	0	0	0	0	0	0	0

verifying that the intersection number with the linear combination 2*D_12^5+12D_12^4+

D_12^2		2 0
D_12^3	intersections with	-1 0
D_12^4	contracted curves	0 0
D_12^5		0 2
D_1^2		2 2
D_1^3		0 -1
D_12^2+2*D_12^3	pullback of delta_2	0 0
D_12^4	pullback of delta_4	0 0
D_12^5+2*D_1^3	pullback of delta_5	0 0
D_1^2+2*D_12^3+2D_1^3	pullback of gamma	0 0

Intersection matrix on M_{0,7}/S_2\times S_5 with those classes that are pullbacks from

	1	2	3	4	5	6	7	8	9	10	11	12	13
D_12^2+2*D_12^3	0	2	2	0	2	0	0	0	2	-2	-2	0	0
D_12^4	0	-1	-1	0	-1	0	2	1	0	2	2	-1	-1
D_12^5+2D_1^3	0	2	2	0	2	0	-4	-2	0	0	0	6	6
D_1^2+2*D_12^3+2D_1^3	0	4	4	0	4	0	2	1	5	-2	-2	0	0
	*	=2	*	=2	*	=2*8				=10		=12	
pullback of relation	0	0	0	0	0	0	0	0	0	0	0	0	0

8gamma-2delta_5-12delta_4-20delta_2 Thus can exclude the last line

delta_2	2	0	2	-2	0	0	0	simplify	2	0	1
delta_4	-1	1	0	2	-1	0	1		-1	1	0
delta_5	2	-2	0	0	6	4	2		2	-2	0

2a-b+2c a
b-2c

all non-negative
b>a 6c>b>2c 2a+2c>b

4 inequalities, vertices if 2 are equalities

b=a and 6c=b 6,6,1 b>2 2a+2c>bok

b=a and b=2c	2,2,1	6c>b ok	2a+2c>b
b=a and 2a+2c=b	1,1,x	2+2x=1 gives x<0	
6c=b and 2a+2c=b	x,6,1	2x+2=6 gives x=2	
6c=b and b=2c	b=c=0, also a=0, oops		
b=2c and 2a+2c=b	0,2,1	b>a ok	6c>b ok

finding generators of the cone

b=6, c=12, so a+c>b autom

(1,1,0) (1,1,2) (1,3,1) (1,3,6)

b=c/2	b=a	1,1,2	ok
b=c/2	a=b/3	1,3,6	ok
b=c/2	a+c=b	-1,1,2	
b=a	a+c=b	1,1,0	ok
b=a	a=b/3	0,0,1	fails b>c/2
a=b/3	a+c=b		

;89513cd6c9ef6e662e7d1c

14	15	16	17	18	19	20	21	22	23	24	Curves, numbered as in the
0	0	0	0	0	0	0	0	0	0	0	admcycles spreadsheet
0	0	0	0	0	0	0	0	0	0	0	
0	0	0	1	1	-1	-1	-1	-1	0	0	
2	2	2	-2	-2	6	6	6	6	2	2	
2	-1	2	1	-2	0	0	0	0	2	-1	
-1	1	-1	0	2	0	0	0	0	-1	1	
*		*							*		contracted curves

0	0	0	0	0	0	0	0	0	0	0

·24D_12^3+20D_12^2-8D_1^2-12D_1^3 is zero

H/S_2\times S_5

14	15	16	17	18	19	20	21	22	23	24	Curves, numbered as in the
0	0	0	0	0	0	0	0	0	0	0	admcycles spreadsheet
0	0	0	1	1	-1	-1	-1	-1	0	0	
0	4	0	-2	2	6	6	6	6	0	4	
0	1	0	1	2	0	0	0	0	0	1	
*		*	=8		=12	=12	=12	=12	*	=15	

0	0	0	0	0	0	0	0	0	0	0

-1	0	0	0	a	coefficients
1	-1	0	1	b	
0	6	1	2	c	

	6c-b	b+2c		resulting coefficients
b-a		c		

gives 6>2, ok
, oops
2,6,1 b>a ok b>2c ok

natic, so a=2 or a=6, so (6,6,12) or (2,6,12) (already accounted for)